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# The Connex:

A New User-Interface Design for the Contacts of a Mobile Phone

Chelsea Lessnick

A Thesis submitted in partial fulfillment of the requirements  
for the degree of:

Master of Fine Arts in Visual Communication Design  
School of Design | College of Imaging Arts and Sciences  
Rochester Institute of Technology  
May 15, 2015

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# Abstract

The Connex: A New User-Interface Design for the Contacts of an Apple iPhone by Chelsea Lessnick

Many social media websites including MySpace, AniRoleplay, and Tumblr give users the opportunity to express their personality by customizing the profile. The contact list of an Apple iPhone currently does not allow users to customize features. This project created a new user-interface design for the contact list of an Apple iPhone which draws inspiration from the Pokédex used in the popular Pokémon franchise. By rebranding this fictional device so the core functionality translates into the real world in a practical and original way, users can bring their personality and creative expression to other devices outside the internet.

Many key components found within the different iterations of the Pokédex were investigated such as the layout style, color scheme, features, and prominent design elements. Understanding the successes and failures of basic informational features of each Pokédex design iteration was critical to the development of this project and served as the foundation of the Connex application. Taking the design characteristics and functional features of the Pokédex and merging them with the functional features of the Apple iPhone, users were given a new level of freedom, control, and flexibility never yet experienced on a mobile platform. Each user has the ability to change the layout, color scheme, typography, and elemental type classifications which can result in the possibility of no two Connex applications appearing identical.

The final iteration of the Connex application meets three core elements. First, it contains a visually friendly user-interface due to the design choices of the developer. Second, it is user friendly due to the attention to detail which was incorporated into the user-interface. Third, it contains the ability for users to customize its features and incorporate their own personality.

## KEYWORDS

User-Interface  
User-Experience  
Mobile Application  
Pokémon  
Pokédex  
Rebranding



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# Introduction

The current interface design for the contact list of an Apple iPhone is minimalistic and business oriented similar to Microsoft Outlook, Google, and Yahoo! contacts. The grayscale color scheme blends information together when skimming through the profile of a contact. Also, the user-interface is too basic which causes the end user to not care for additional information outside of a phone number and maybe a profile picture.

The idea of this project was to create a commercial application with a new user-interface design for the contact list of an Apple iPhone which draws inspiration from the Pokédex used in the popular Pokémon franchise. The goal was to re-brand this fictional device so the core functionality translated into the real world in a practical and original way. The choice to re-imagine this interface around the Pokédex stems from the realization that the Pokédex and the contact list of an Apple iPhone operate on an identical level:

- 1.) A Pokédex is a handheld digital encyclopedia that stores and presents data for all Pokémon and provides Pokémon Trainers with material which can be referenced at anytime during their journey. The contact list is not an encyclopedia, but it does store and present data to the user on every contact programmed into their phone. Although it must be inputted manually, it can be referenced at any point thereafter.
- 2.) A Pokédex displays all information relating to each Pokémon, such as biological information, reference pictures, audio cry, and habitat based upon the time of day. Although not as descriptive, the contact list does contain information such as the phone number of a contact, address, employer, anniversary, social media pages, and other content.

Although the Pokédex shares similar design elements with the contact list of an iPhone, it is the contacts of the user that will replace each individual Pokémon. This should invoke nostalgia among fans of the Pokémon series as they go on a quest to complete their own “Pokédex” and obtain information to complete each field of a contact entry.

With the design characteristics of the Pokédex and the functional features of the Apple iPhone combined into one minimalistic design, users have the ultimate form of freedom, control, and flexibility as they begin to incorporate their own personality into their phone with each new update rolled out. Users are able to control the content for each contact entry, and customize different components of the application.

The level of control needed to stay true to the Pokédex theme can be accomplished through a mixture of design aesthetics and graphic elements to convey a similar user-experience to long-time fans of the series. For those unfamiliar with the series, the interface proposes a new approach to users in terms of understanding their friends in a fun and enjoyable manner.

# Review of Literature

## User-Interface Literature

### **Designing Visual Interfaces**

by Kevin Mullet and Darrell Sano  
SunSoft Press, Englewood Cliffs, New Jersey. 1995.

Coming from an industrial design and graphic design background, Mullet and Sano (respectively) created “Designing Visual Interfaces” based on the many tutorials they conducted while at CHI and other conferences since 1993. The book shows the design of a user-interface from a lesser known visual communication perspective as it describes a number of important design rules and techniques taken from the traditional print media and applied to the context of computer software in a series of illustrative screen pictures. Mullet and Sano argue that elements within a design must be unified to produce a coherent whole, yet must also contain a certain degree of contrast against each other. A visual hierarchy of importance must be established in order to display the relationship between elements and groups while maintaining a pleasing balance in the composition. A flexible grid should be the base for each page so different screens have a consistent look when compared to each other.

### **UI is Communication: How to Design Intuitive, User-Centered Interfaces by Focusing on Effective Communication.**

by Everett N. McKay  
Elsevier, Waltham, Massachusetts. 2013.

Working as a principle for the consultant company UX Design Edge, McKay is a user-experience design trainer for desktop, mobile, and web applications. McKay’s book is targeted towards software professionals who are not experienced designers as he discusses the communication design principles which provide:

- The baseline of intuitive user-interactive design
- Interaction design which establishes the language of UI
- Visual design which explores UI from a communication perspective
- Communication to people which covers the end user interaction
- A communication-driven design process
- A UI design case study which applies the communication-driven design process to various design problems.

## Web Usability Literature

### **Designing Web Usability**

by Jakob Nielsen

New Riders Publishing, Indianapolis, Indiana. 2000.

Nielsen is a usability specialist and his book focuses on the relationship between usability and the internet. Based on his research and findings, he has formulated two critical principles concerning web usability: 1) web users want to find what they are after quickly, and 2) if they do not know what they are after, they want to browse the information quickly and in a logical manner. Intended for computer programmers and computer graphic designers, this book also applies to every digital device produced since there are different types of screens from which people could be reading information. The underlying foundation of this book is the usability of books versus digital device applications to obtain information.

### **Don't Make Me Think!: A Common Sense Approach to Web Usability**

by Steve Krug

New Riders Publishing, Indianapolis, Indiana. 2005.

Krug is an information architect and user experience professional who uses his book to target web designers. He exposes different ways in which a user navigates and interprets a web page, adding that every bit of thought on what to do next will only add to the brain's workload causing frustration. Most users no longer read an entire web page, but scan the pages for points of interest. To achieve a design meant for scanning rather than reading, Krug suggests a visual hierarchy should be established, relatable text should be nested together and kept brief, and sections of a page along with clickable items should be clearly defined. He also suggests "do's" and "don'ts" which can be applied to mobile applications. For example, not hiding information on the user, not obstructing the site with fancy features, and not making the user take on unnecessary obstacles.

## Design Literature

### **Basics of Design: Layout and Typography for Beginners**

by Lisa Graham  
Thomson Delmar Learning. 2005.

Graham is an Associate Professor at the University of Texas in Arlington, and serves as the area head of Graphic Communication in the Department of Art. Her book focuses on how imagery and typography correspond with each other on a page. The target audience for Graham's book ranges from beginning design students to professionals. The premise of this book addresses the different design principles needed to develop a message and direction since each principle effects the layout of the page differently. These basic design concepts for typography apply to print and digital works.

### **Official Pokédex iOS App**

Developed by The Pokémon Company  
Released December 10, 2012  
[http://www.Pokédexios.com/howto/index\\_iphone.html](http://www.Pokédexios.com/howto/index_iphone.html)

Released for Apple mobile devices, the Official Pokédex iOS App took a unique approach to the graphic design interface of the application which closely resembles the PC box from the games rather than an actual Pokédex. A PC box stores captured Pokémon after the player has obtained more than six Pokémon. The Official Pokédex iOS App experimented with many styles and features which were not implemented into the games. For example, viewing the list by icon, descriptive lists or shortened lists, changing the background image, browsing the list of moves a Pokémon can learn, categorizing Pokémon, and lastly leaving your own memos about certain Pokémon.

## App Creation Literature

### **Tapworthy: Designing Great iPhone Apps**

by Josh Clark  
O'Reilly Media Inc, Sebastopol, California. 2010.

Clark is a professional software designer and developer who created exceptional end-user experiences when developing iPhone applications. His guide focuses on the interface and visual capabilities of the device, discussing the design principles and aesthetic choices that should be followed when trying to create noteworthy and tool-appropriate applications. Clark also examines conceptual design topics including screen real estate for visual clarity, the best use for standard controls, gestures, and the application interactivity. He does not mention computer programming code nor attempt to give advice.

### **Designing Mobile Interfaces**

by Steven Hooper and Eric Berkman  
O'Reilly Media Inc., Sebastopol, California. 2012.

Hooper is a freelance interactive systems designer, and Berkman is an interaction designer and experience architect at Digital Eskimo. The book is designed to cover any job field related to design—information, visual, interaction, interface, and hardware. Hoover and Berkman outline a few principles concerning mobile interfaces. Above all, designers must: realize mobile phones are personal and must work in all contexts, respect user-entered data, and ensure consistency. They also discuss topics to break down the design components of mobile platforms such as wayfinding, notification sounds, screen real estate, composition, and visual hierarchy which can take the form of scrolling, fixed menus, lock screens, advertisements, position, size, shape, contrast, color, and form. By understanding the architecture and components of a handheld device, it will become easier for designers to develop successful interfaces and applications for the users.

### **From Idea to App: Creating iOS UI, Animations, and Gestures**

by Shawn Welch  
New Riders Publishing, Indianapolis, Indiana. 2011.

A graduate of Kansas State University in Computer Engineering, Welch has taken on the role of iOS designer and developer for Kelby Media Group and the National Association of Photoshop Professionals. Welch provides developers and designers with step-by-step directions to help them move from the conception stage of an idea to a fully functional application for the iOS. Welch covers the entire workflow process, from designing for multiple devices and customizing system UI elements to considering content display choices and effective presentations.

### **Technical Literature**

#### **iPhone User Guide for iOS6.1 Software**

Apple Inc.  
January 28, 2013  
[http://manuals.info.apple.com/MANUALS/1000/MA1565/en\\_US/iphone\\_user\\_guide.pdf](http://manuals.info.apple.com/MANUALS/1000/MA1565/en_US/iphone_user_guide.pdf) Pages 100-102

Designed and constructed for first time iPhone users, the iPhone User Guide covers the basic functions of the device in a clear and concise step-by-step manner. Since this project revolves around the contact list of an iPhone, this guide aids with the functions of adding, editing, and deleting contacts.

**iOS Developer Program**

Apple Inc.

<https://developer.apple.com/programs/ios/develop.html>

Apple has created a lineup of different development programs to allow programmers and iPhone users to turn brilliant ideas into functional applications for all iOS devices. Development tools and resources are at the disposal of everyone, and real-time testing can be performed on the developer's device. Once the application has been refined, Apple will then help the programmer get the application into the marketplace for others to download.

**Subject Matter  
Literature as of  
September 2013**

**Generation I: Pokémon Red, Pokémon Blue, and Pokémon Yellow**

Developed by Game Freak, Inc.

Published by Nintendo

Red and Blue Released on September 30, 1998

Yellow Released on October 1, 1999

Marking the beginning of the popular franchise, Pokémon Red, Pokémon Blue, and Pokémon Yellow was created for gamers ages 8-15. The Pokédex of this generation was kept simple in terms of design and information displayed about the different Pokémon in the game. Information was kept to a single page with the exception of a Pokémon's entry and the area in which it lived.

**Generation II: Pokémon Gold, Pokémon Silver, and Pokémon Crystal**

Developed by Game Freak, Inc.

Published by Nintendo

Gold and Silver Released on October 15, 2000

Crystal Released on July 29, 2001

The second generation installment of the series is Pokémon Gold, Pokémon Silver, and Pokémon Crystal which were created for gamers ages 8-15 and fans of its predecessors. This generation brought a revolutionary new feature to the series: the search option. This allowed the player to search for specific Pokémon based on different criteria. The Pokédex also had minor changes made to it including a darker color scheme, and an avatar of the Pokémon incorporated into the list. In addition, the "data", "cry", and "habitat" buttons were relocated to the Pokémon's entry page as a sub-menu across the bottom of the screen.

### **Generation III: Pokémon Ruby, Pokémon Sapphire, and Pokémon Emerald**

Developed by Game Freak, Inc.

Published by Nintendo

Ruby and Sapphire Released on March 19, 2003

Emerald Released on May 1, 2005

Pokémon Ruby, Pokémon Sapphire, and Pokémon Emerald marked the beginning of the third generation with a target audience of gamers ages 8-15 along with fans of the series. A redesign of the Pokédex followed the technological advancements of Nintendo's handheld system. The Gameboy Advance allowed Game Freak to take design risks as they expanded the capabilities of the Pokédex to include new content such as viewing a Pokémon's size in relation to the main character.

### **Generation III Remakes: Pokémon FireRed and Pokémon LeafGreen**

Developed by Game Freak, Inc.

Published by Nintendo

Released on September 9, 2004

Released as remakes of the Generation I classics, the Pokédex of Pokémon FireRed and Pokémon LeafGreen has been completely transformed making it less user friendly by adding extra steps. Players must go through a search screen before they can be redirected to the full list of Pokémon. Within the list, each elemental type is listed next to the name of the Pokémon causing the screen to be in disarray. With different pages containing different content, the inconsistent layout makes the information appear misplaced.

### **Generation IV: Pokémon Diamond, Pokémon Pearl, and Pokémon Platinum**

Developed by Game Freak, Inc.

Published by Nintendo

Diamond and Pearl Released on April 22, 2007

Platinum Released on March 22, 2009

Marking the start of the fourth generation games, Pokémon Diamond, Pokémon Pearl, and Pokémon Platinum are the first to target an older audience from ages 7-20. The Nintendo DS system introduced dual screens which allowed Game Freak more screen real estate in which to work and of which they took full advantage. The top screen shows a list of Pokémon and a picture of the currently selected Pokémon, while the bottom screen contains various buttons which allows the player to perform a search, and switch the layout of the Pokédex. A new feature was added to the Pokédex of this generation: viewing the various forms of a Pokémon.



**Generation IV Remakes: Pokémon HeartGold and Pokémon SoulSilver**

Developed by Game Freak, Inc.

Published by Nintendo

Released on March 14, 2010

Released as remakes of the Generation II classics, the Pokédex of Pokémon HeartGold and Pokémon SoulSilver has been completely remodeled. Moving away from a list format, Game Freak opted to display the avatar of each Pokémon in small boxes arranged in a grid format. Players still have the option of viewing a Pokémon's habitat, data, and listening to their cry; however, the habitat portion of the Pokédex has been updated to reflect the location of Pokémon based upon the time of day, since some Pokémon only appear at night. Overall, this redesign is far more visual and greatly reduces the amount of content that needs to be displayed thereby making the interface appear less cluttered.

**Generation V: Pokémon Black and Pokémon White**

Developed by Game Freak, Inc.

Published by Nintendo

Released on March 6, 2011

Pokémon Black and Pokémon White marked the beginning of the fifth generation of the series. This new generation of games offer a fully redesigned Pokédex that utilizes both screens to act as one. The list of Pokémon appears on the right side of the screen and bleeds into the top screen when the player scrolls down far enough. Some information appears on the top screen such as how many Pokémon the player has "seen and obtained". A sub-menu is located at the bottom of the screen which allows players to conduct a search and switch between the regional and national versions of the Pokédex.

**Generation V Sequels: Pokémon Black2 and Pokémon White2**

Developed by Game Freak, Inc.

Published by Nintendo

Released on October 7, 2012

Pokémon Black2 and Pokémon White2, set two years after the events of Pokémon Black and Pokémon White, represent the first sequel produced in the series. Instead of switching between the regional and national Pokédex, players can switch between viewing the Pokémon in a list form or by habitat location.

# Situation Analysis

Operating systems, websites, computer software, gaming systems, video games, tablets, mobile phones, and many other devices which revolve around a user require a type of user-interface. Over the years, users have experienced successful and not so successful interfaces. For example, Windows 95 was the first PC operating system to incorporate a start menu along with a minimize, maximize, and close buttons at the top of every window. It gave users ultimate control over their desktop with respect to keeping it clean and organized. However, it was not until Windows 7 when the user-interface received a makeover with improved functionality, which made the interface compact and far more enjoyable for the average user.

Most Microsoft operating systems work well because Microsoft focused on the end user and kept the functionality similar to what the end user was already familiar with from previous operating systems. Microsoft also added a few new features with each new operating system to keep the interface fresh and enjoyable while not making it overbearing as a whole. Attention to User-Centered Design has been the major contribution to the success of Microsoft.

In today's economy, Customer Relationship Management (CRM) software allows business to gain actionable customer insights, view business opportunities, streamline operations, and personalize customer service based on the customer's known history and prior interactions with the business.<sup>1</sup> This is most commonly used for managing business-customer relationships, business contacts, clients, contract wins, and sales leads.

The Connex application is not a form of CRM software; however, it does contain similar operational functions such as managing the relationship between the user and their family or friends. The Connex is a database application geared towards building stronger personal relationships between family and friends.

User-Centered Design appears in other subjects, but not as profusely as in web design. The most successful websites focus on functionality and the end user rather than the actual graphic design. Some websites achieve success by allowing users to create their own profile or page within the site. A few examples include MySpace, AniRoleplay, and Tumblr. Custom themes which contain a redesigned interface offer users the opportunity of adding personality to their profiles, and these new designs can range from a minimalistic, single column grayscale layout, to a full grid system colored in pinks, purples, greens, and blues. Customized layouts have become a form of expression on the internet as they convey a sense of personality about the user behind the web page.

---

1. Sigma Software. "Customer Relationship Management." Accessed on March 6, 2016. <http://sigmasoftwares.org/crm.html>

The internet is not the only place where customizable interfaces and layouts have made an appearance. Operating systems now allow users to customize the desktop background and icons, along with programs to display in the start menu and taskbar. Some software programs such as Autodesk Maya allow users to create commonly used shortcuts for easy access. Tablets also offer users the option of changing how information is presented, and users can group applications together into one location. Many electronic devices offer the option of customization to users, but user-interfaces with added personality only appear on websites. With this project, users can bring their personality and creative expression to other devices outside the internet.

This post by a-n-i-m-e-f-o-r-e-v-e-r and reblogged by Rinwolfy, appeared on this Thesis Candidate's dashboard outlining a concept that has not yet been accomplished.

**FIGURE 1**

**Screenshot of a  
Tumblr post,  
initiating the  
concept idea.<sup>2</sup>**



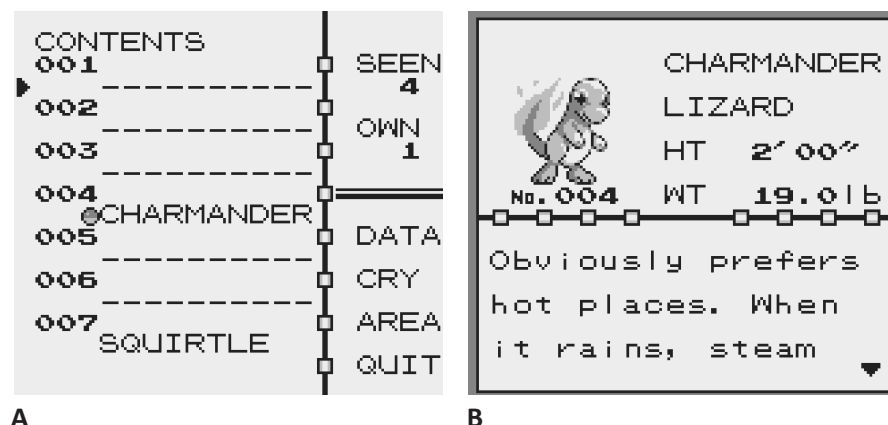
2. Tumblr. "38674586225." Last modified December 23, 2012. <http://a-n-i-m-e-f-o-r-e-v-e-r.tumblr.com/post/38674586225>

Many developers have recreated the Pokédex in their own visual concept allowing fans of the Pokémon franchise to view all 700+ Pokémon on a mobile device; however, the content is identical. This concept by a-n-i-m-e-f-o-r-e-v-e-r is original because it removes the Pokémon content and replaces it with the contacts of the user.

The idea of merging the Pokédex with a contact list of a mobile phone was there, but it needed a developer with strong design and user-oriented skills to transform it into a functional application. Eight Pokédex interfaces were studied carefully to answer the following questions:

- What style layout was used?
- What color scheme was used?
- What features were included in the Pokédex?
- What were the most prominent design elements?
- What made this design iteration of the Pokédex successful or not?

**FIGURE 2**  
The Pokédex interface of Pokémon Red, Pokémon Blue, and Pokémon Yellow.<sup>3</sup>



3. GameFreak. "Pokémon Red," "Pokémon Blue," and "Pokémon Yellow." Published by Nintendo. Released in 1998-1999.

FIGURE 2



C

The first Pokédex critiqued is from the Generation I series of Pokémon games. Released for a system considered to be outdated by today's standards, this version of the Pokédex contained only the basic necessities.

#### **What style layout was used?**

A specific style or structure was not used for this Pokédex. Based upon FIGURE 2A, the developers attempted to create a two column layout, but it was not incorporated into other pages. This creates a sense of chaos and inconsistency due to information not appearing in the same location.

#### **What color scheme was used?**

Due to the limitations of technology in 1998 and 1999, color outside of the common grayscale could not be applied. Therefore, a visual hierarchy could not be created.

#### **What features were included in the Pokédex?**

In this version of the Pokédex, only the bare necessities were included such as hearing an audio cry of the Pokémon, viewing a data entry for each individual Pokémon referenced in FIGURE 2B, and viewing the habitat location of each Pokémon referenced in FIGURE 2C.

#### **What were the most prominent design elements?**

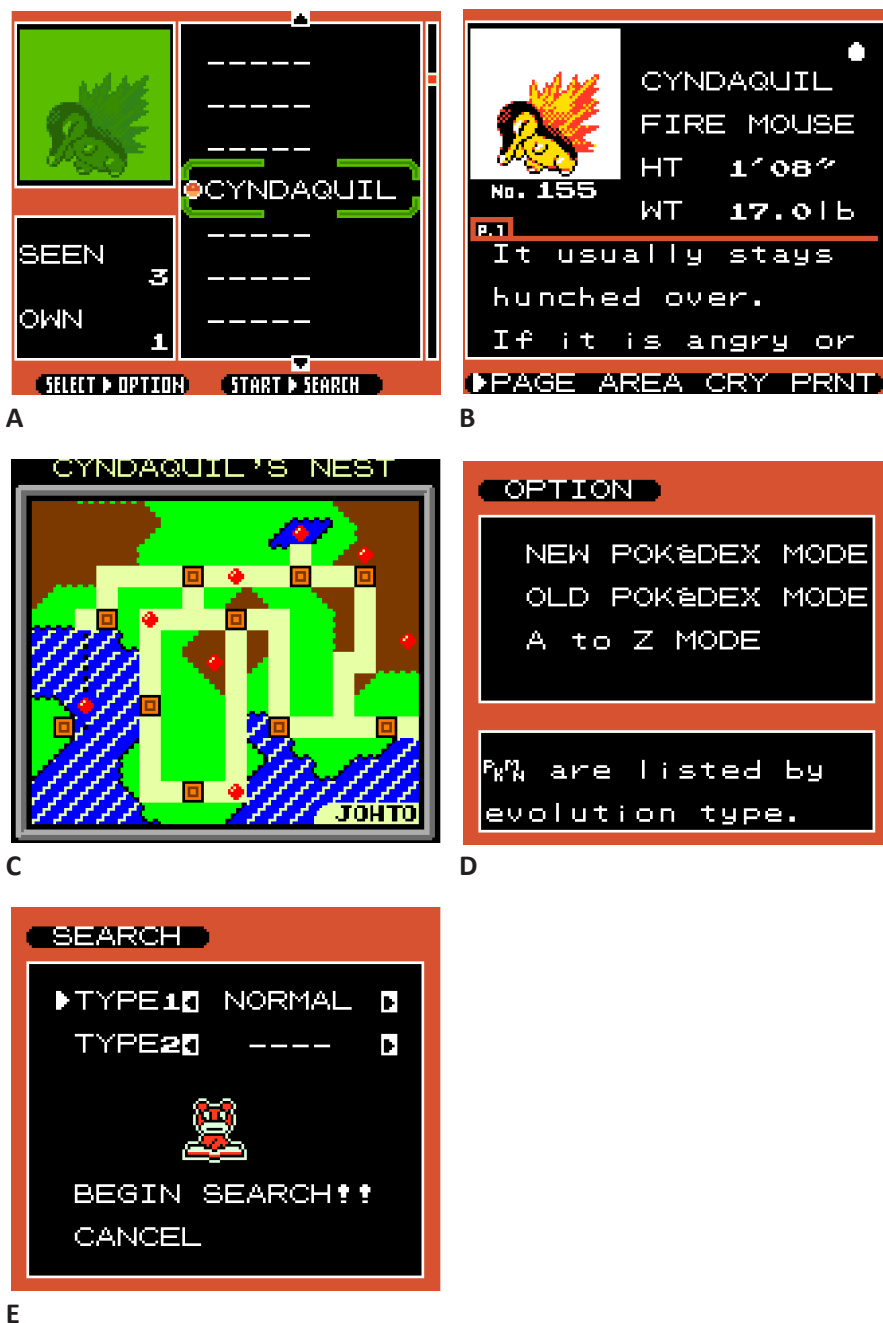
Due to the basic and simplistic design of this Pokédex, straight lines and small boxes were the only recurring design elements used within each page. This brought little unity between the three pages.

#### **What made this design iteration of the Pokédex successful or not?**

Overall, this version of the Pokédex is basic, simple, and straightforward. Colors do not compete with each other, and the screen is not cluttered with information where users can understand what the device is meant to do.

FIGURE 3

The Pokédex interface of Pokémon Gold, Pokémon Silver and Pokémon Crystal.<sup>4</sup>



4. GameFreak. "Pokémon Gold," "Pokémon Silver," and "Pokémon Crystal." Published by Nintendo. Released in 2000-2001.

The second Pokédex critiqued is from the Generation II series of Pokémon games. It kept to the basic elements found in its predecessors; however, in this generation like information is grouped together so that new features could be added.

#### **What style layout was used?**

A specific style or structure was not used for this Pokédex. Based upon FIGURE 3A, the developers attempted to revise the two column layout. This revision was effective, but it was not incorporated into other pages rendering it ineffective as a whole. FIGURE 3A starts with the structure in a portrait orientation, but the remaining pages change to a landscape orientation, thus creating an inconsistent layout.

#### **What color scheme was used?**

Technology has made considerable advancements to allow for color implementation. Game Freak selected a dark color scheme consisting of black, red, green, and white. This helps to create a dynamic aspect, but the overall result remains weak due to the colors being heavily saturated.

#### **What features were included in the Pokédex?**

In this version of the Pokédex, only the basic necessities were included such as viewing a data entry for each individual Pokémon as illustrated in FIGURE 3B. Other necessities include hearing an audio cry of the Pokémon, and viewing the habitat location of each Pokémon as illustrated in FIGURE 3C.

In Generation II, the “data,” “cry,” and “area” commands were shifted to the data entry page as a sub-menu along the bottom of the screen as shown in FIGURE 3B. Replacing these commands on the first page was a search and options feature. In FIGURE 3D, the options feature allows players to change the order in which the Pokémon are displayed. In FIGURE 3E, the search feature allows players to browse the Pokédex more effectively due to the expansion to include another one hundred Pokémon.

#### **What were the most prominent design elements?**

Instead of using subtle box graphics as its predecessor, the Generation II Pokédex opted for box containers around each piece of information. This is the only consistent element among the five pages, but it is not enough to command and direct the eye to the information presented.

#### **What made this design iteration of the Pokédex successful or not?**

Overall, this version of the Pokédex has made positive advancements, but it is still weak. The layout style and color scheme are negative features that need to be addressed.

**FIGURE 4**  
The Pokédex interface of  
Pokémon Ruby,  
Pokémon  
Sapphire, and  
Pokémon  
Emerald.<sup>5</sup>



The third Pokédex critiqued is from the Generation III series of Pokémon games.

#### What style layout was used?

Referencing FIGURE 4A, Game Freak aimed for a three column structure. Although this structure was not continued throughout the remaining pages, it does bring unity to the Pokédex by creating a landscape orientation for all six pages.

5. GameFreak. "Pokémon Ruby," "Pokémon Sapphire," and "Pokémon Emerald." Published by Nintendo. Released in 2003-2005.



### What color scheme was used?

This Pokédex used a mixture of blue, green, red, orange, black, and white which do not work well together in creating a consistent Pokémon theme. The color choices are complete opposites with green and blue as cool colors, and red and orange as warm colors.

### What features were included in the Pokédex?

Three new features were added to the Generation III Pokédex. The first feature included a height comparison of the Pokémon in relation to the player character. The second feature was an update to the audio cry page where players can now view the frequency levels of the sound. The third feature is an update to the search function which has been expanded to include the name, color, and type of Pokémon.

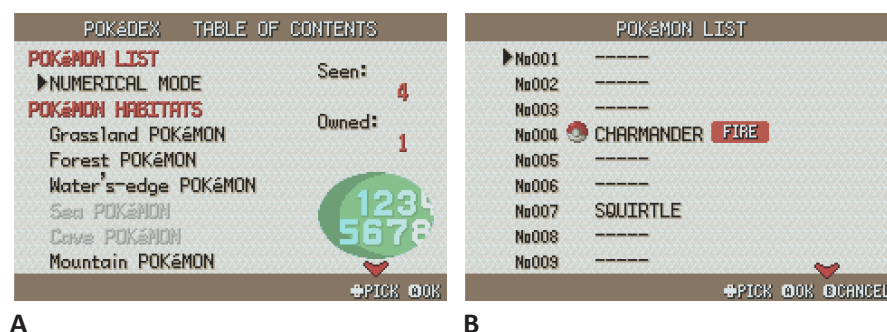
### What were the most prominent design elements?

The Generation III Pokédex continued with the concept of box containers around each piece of information. This created a constricting and clustered page as the container edges appear too close to the text.

### What made this design iteration of the Pokédex successful or not?

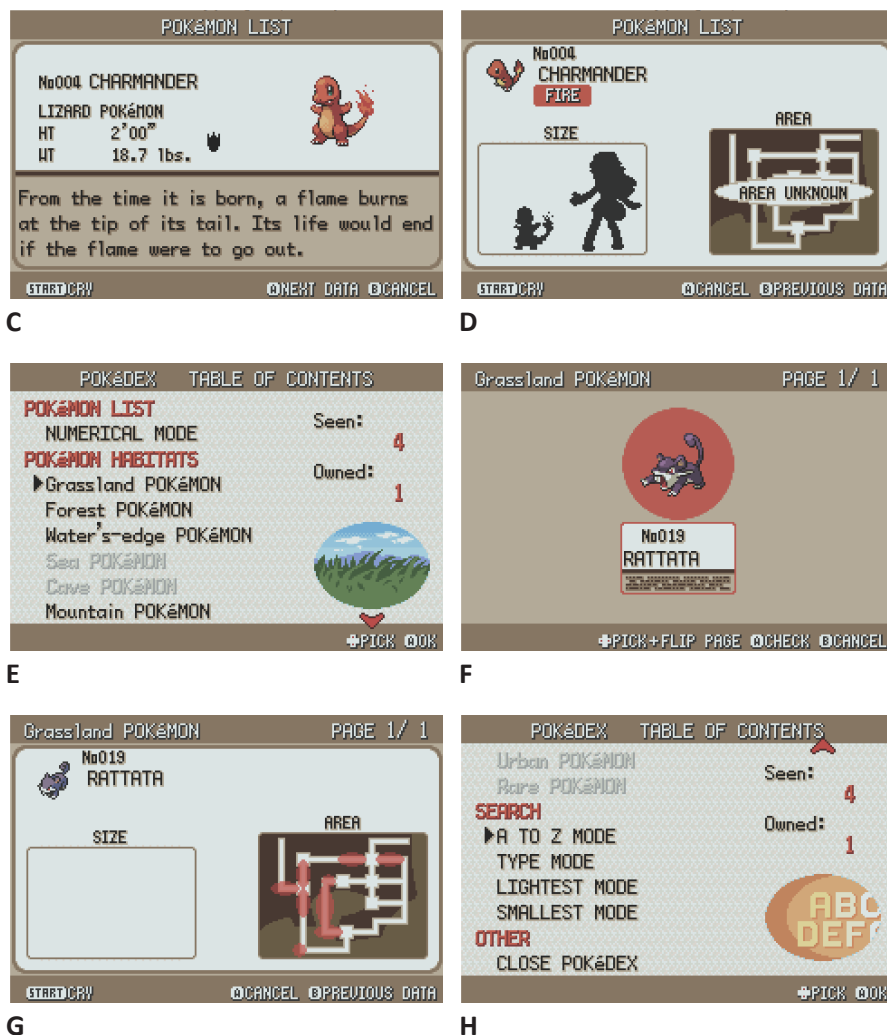
Overall, this version of the Pokédex has not made any improvements. The color scheme and layout structure is weak which resulted in an inconsistent design throughout the Pokédex.

**FIGURE 5**  
The Pokédex interface of Pokémon FireRed, Pokémon LeafGreen.<sup>6</sup>



6. GameFreak. "Pokémon FireRed," and "Pokémon LeafGreen." Published by Nintendo. Released in 2004.

FIGURE 5



The fourth Pokédex critiqued is from the Generation III Remake series of Pokémon games.

#### What style layout was used?

A specific style or structure was not used for this Pokédex. Based upon FIGURE 5A, 5D, 5E, 5G, and 5H the developers reverted back to a two column layout. Although not as apparent and sectioned off, this structure was reused in other pages which brought unity to the overall layout. However, not all pages follow this structure and thus is not well executed.

### What color scheme was used?

Neutral colors such as brown, red, and orange gives the information contrast against each other to create a form of visual hierarchy well suited for easy skimming.

### What features were included in the Pokédex?

New features were not added to this version of the Pokédex. Instead an update was applied to the search function. Players can view the Pokémon based upon their habitat location as shown in FIGURE 5E.

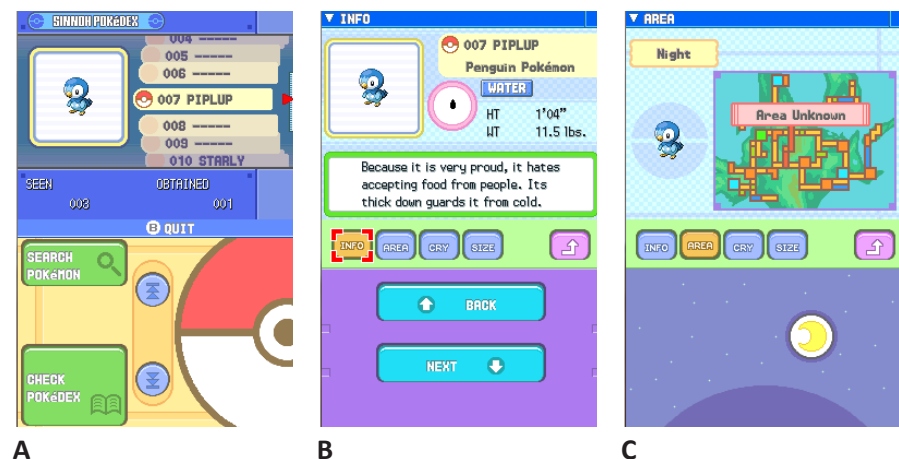
### What were the most prominent design elements?

Moving away from boxed containers allowed information to rest freely on the pages. The only prominent design element in this Pokédex was the brown bars that appeared at the top and bottom of each page.

### What made this design iteration of the Pokédex successful or not?

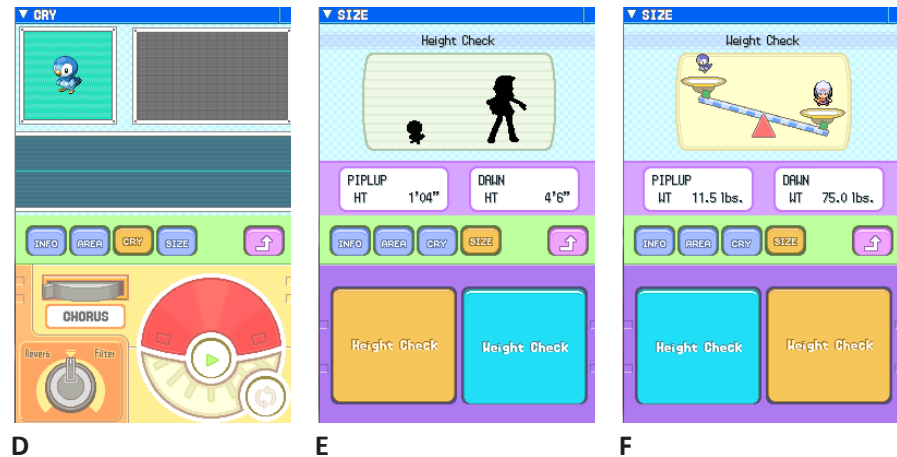
Overall, this Pokédex interface is the least user friendly due to the overwhelming presentation of information and unnecessary screens. For example, the Pokédex forces the player to navigate through an excessive number of screens to acquire information. Lacking a grid structure, inconsistencies become extremely noticeable because some pages are formatted to display single and double column layouts while others are formatted to display top and bottom split screen layouts.

**FIGURE 6**  
The Pokédex interface of Pokémon Diamond, Pokémon Pearl, and Pokémon Platinum.<sup>7</sup>



7. GameFreak. "Pokémon Diamond," "Pokémon Pearl," and "Pokémon Platinum." Published by Nintendo. Released in 2007-2009.

FIGURE 6



The fifth Pokédex critiqued is from the Generation IV series of Pokémon games.

#### What style layout was used?

This generation Pokédex is consistent with the landscape orientation.

#### What color scheme was used?

According to “Basics of Design: Layout & Typography for Beginners” by Lisa Graham, the key to a successful design is using one—or two-color choices. This Pokédex introduced eight colors: blue, yellow, orange, green, red, white, purple, and pink. These colors are vibrant and saturated, and fails to direct the player’s eye to important information.

#### What features were included in the Pokédex?

As shown in FIGURE 6F, a weight comparison was added allowing players to compare the weight of the Pokémon to the main character. Another added feature was the option to view the habitat location of a Pokémon based upon the time of day as shown in FIGURE 6C. Players can drag the circle across the screen bringing it to the far left for day, or far right for night. This updates the habitat map on the top screen in real time to reflect the Pokémon that only appear at certain times of the day.

#### What were the most prominent design elements?

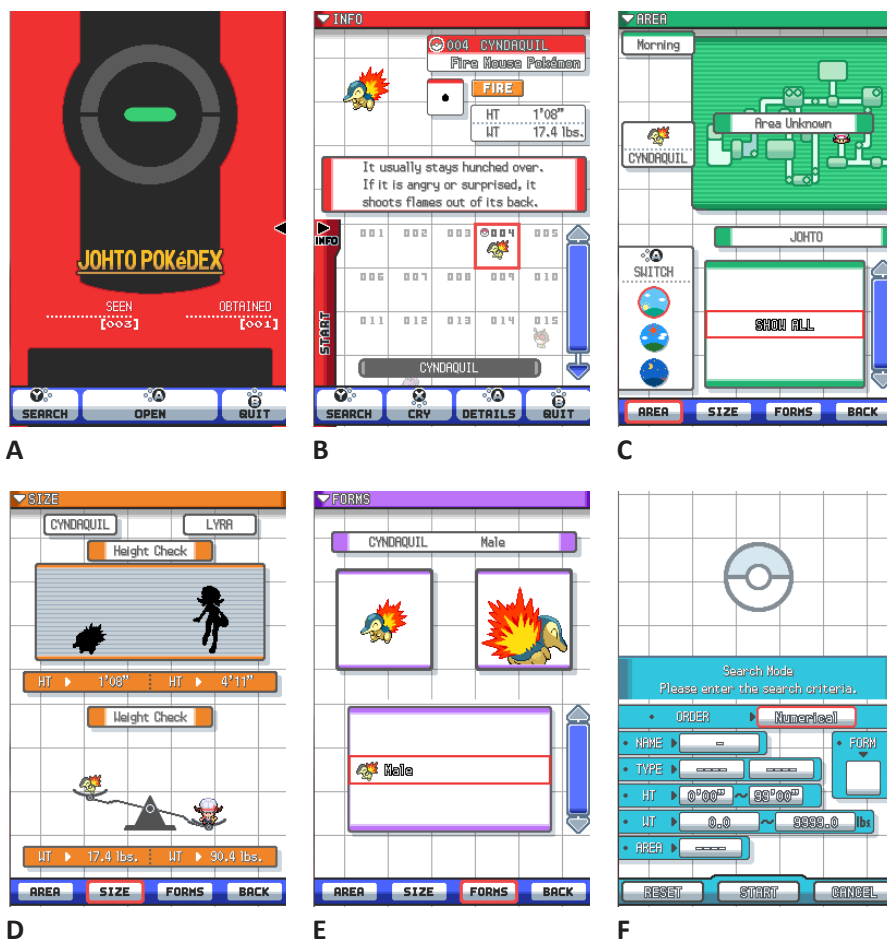
The introduction of many containers with colorful outlines on one page leads to a negative experience when navigating the Pokémon. Players become overwhelmed as the color competes with the content.

#### What made this design iteration of the Pokédex successful or not?

Overall, this version of the Pokédex contains many poor design choices in terms of the page layout and color scheme, and these areas need to be addressed.

FIGURE 7

The Pokédex interface of Pokémon HeartGold, and Pokémon SoulSilver.<sup>8</sup>



The sixth Pokédex critiqued is from the Generation IV Remake series of Pokémon games.

#### What style layout was used?

A two column structure was brought back for this iteration of the Pokédex, and was redesigned to fit the other pages.

8. GameFreak. "Pokémon HeartGold," and "Pokémon SoulSilver." Published by Nintendo. Released in 2010.

### What color scheme was used?

The red, green, yellow, blue, and white that appear in FIGURES 7A and 7B work in harmony, and the avatars of each Pokémon that appear in the grid on the bottom screen of FIGURE 7B add an extra splash of color to break up the primary colors in the scheme. However, when the player gets to the habitat page in FIGURE 7C, the height and weight comparison in FIGURE 7D, and the forms page in FIGURE 7E, the green, orange, and purple recoloring of the page becomes unnecessary and does not fit in with the rest of the Pokédex.

### What features were included in the Pokédex?

As shown in FIGURE 7E, a forms page was added to this iteration of the Pokédex. This new feature gives players the opportunity to view the form of a Pokémon based on gender and shiny status.

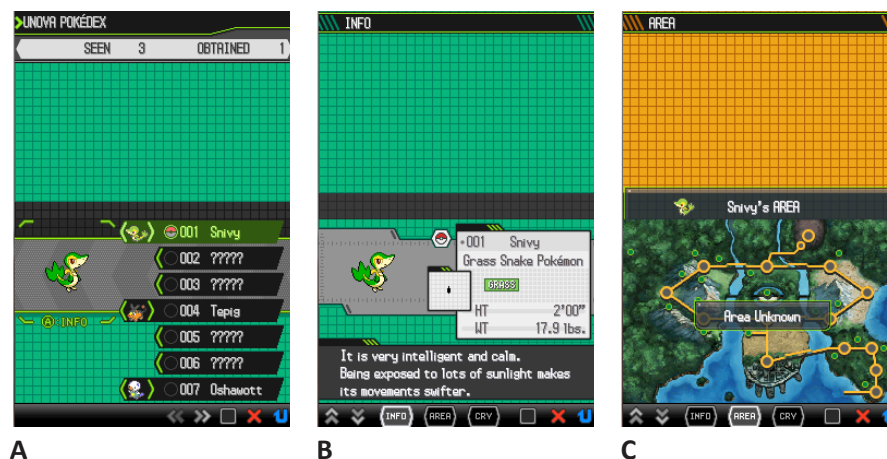
### What were the most prominent design elements?

Square containers are still the most prominent design choice for encompassing information. In keeping with time proven UI basics, not many containers are on a page at one time which allows white space to show through.

### What made this design iteration of the Pokédex successful or not?

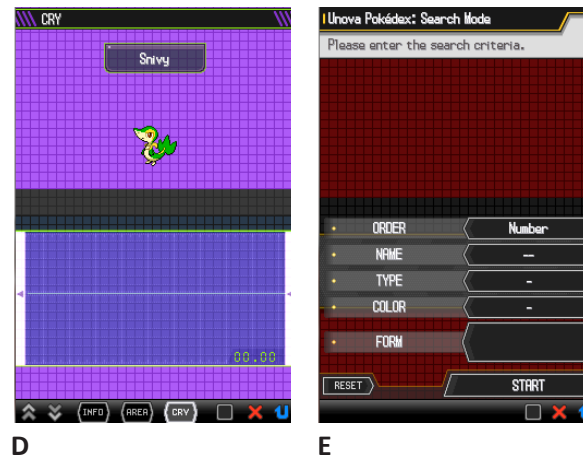
Overall, this version of the Pokédex is successful because it is far more visual than text based. Only important information is displayed, making the text load light for the player. The colors are not overpowering and do not compete with each other. The only setback to this Pokédex is the rectangle containers. Not everything needs to be contained within a box, and removing the boxes would improve the effectiveness of the design by allowing the information to appear as an overlay.

**FIGURE 8**  
The Pokédex  
interface of  
Pokémon Black,  
and Pokémon  
White.<sup>9</sup>



9. GameFreak. "Pokémon Black," and "Pokémon White." Published by Nintendo. Released in 2011.

FIGURE 8



The seventh Pokédex critiqued is from the Generation V series of Pokémon games.

#### What style layout was used?

Opting for a container free layout, Game Freak created an overlay styled design with subtle animation in the background. Otherwise, a strong grid system was designed for this Pokédex iteration to create consistency across pages.

#### What color scheme was used?

Black, gray, green, red, blue, yellow, purple, and red were the chosen colors for this iteration of the Pokédex. The colors are less saturated, and darker in tone to harmonize with each other.

#### What features were included in the Pokédex?

New features were not added to this generation of the Pokédex.

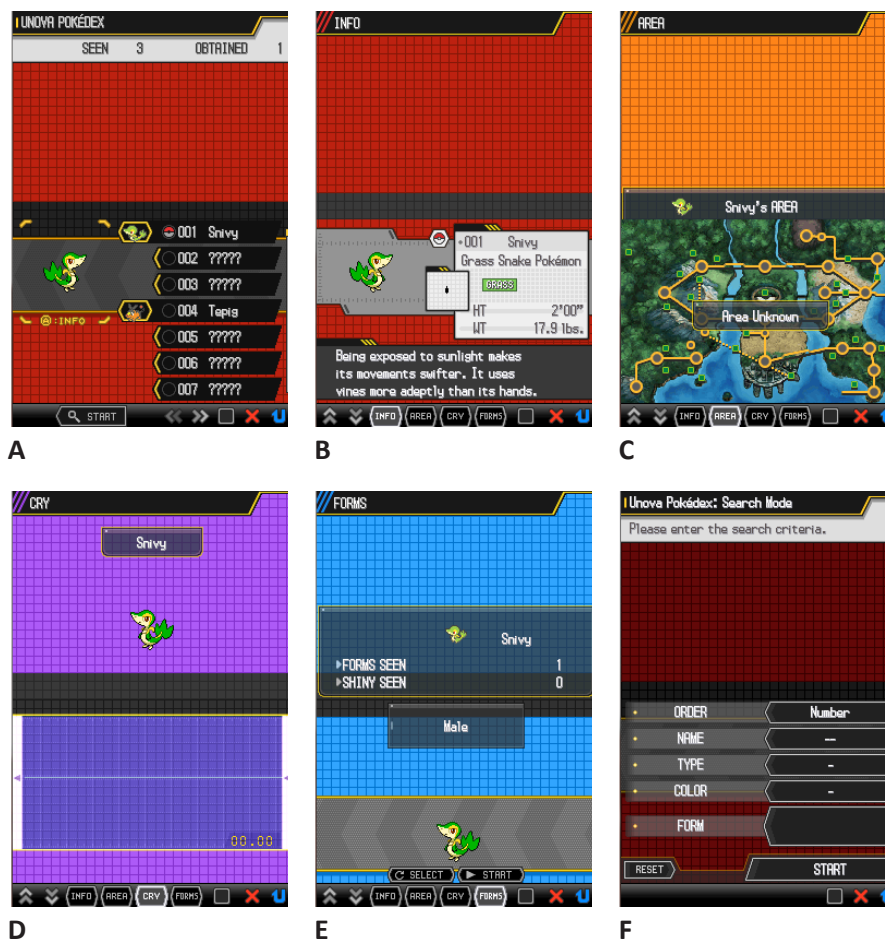
#### What were the most prominent design elements?

Only a few square containers remain present; however, Game Freak implemented angled edges into the design thereby creating depth to the layout as shown in FIGURE 8A.

#### What made this design iteration of the Pokédex successful or not?

Overall, this version of the Pokédex is successful because Game Freak returned to the origin of the franchise and simplified the interface to include only essential elements. Removing the square containers and adding different shapes opens the layout to provide a fresh and dynamic appearance.

**FIGURE 9**  
The Pokédex interface of  
Pokémon Black2,  
and Pokémon  
White2.<sup>10</sup>



The eighth Pokédex critiqued is from the Generation V Sequel series of Pokémon games.

#### What style layout was used?

Opting for a container free layout, Game Freak created an overlay styled design with subtle animation in the background. Otherwise, a strong grid system was designed for this Pokédex iteration.

#### What color scheme was used?

Black, gray, red, orange, blue, and purple were the chosen colors for this iteration of the Pokédex. Some colors were changed from the previous iteration so that they blended from page to page.

10. GameFreak. "Pokémon Black2," and "Pokémon White2." Published by Nintendo. Released in 2012.



**What features were included in the Pokédex?**

New features were not added to this generation of the Pokédex, but new content was added. In FIGURE 9E, players can view the different forms of a Pokémon based upon gender, shiny status, and seasons. The Pokémon Black and Pokémon White series is the first generation of games to incorporate the four seasons into its gameplay.

**What were the most prominent design elements?**

Only a few square containers remain present; however, Game Freak implemented angled edges into the design creating depth to the layout as shown in FIGURE 9A.

**What made this design iteration of the Pokédex successful or not?**

Overall, this version of the Pokédex is successful because Game Freak returned to the origin of the franchise and simplified the interface to include only essential elements. Omitting the square containers and adding different shapes opens the layout to provide a fresh and dynamic appearance.

The evaluation of the strengths and weaknesses in each version of the Pokédex are important considerations when developing this project. For example, the basic and simplistic design of FIGURE 2; the minimal color scheme and visual cues of FIGURE 7; and the dynamic angles along with the overlay effect of the content in FIGURE 8 and FIGURE 9 are strengths to consider when developing this project. Whereas elements such as an inconsistent layout structure, boxed containers as shown in FIGURE 4, and a color scheme with more than three colors as shown in FIGURE 6 are to be avoided.

To further develop this project for mobile platforms, research on existing Pokédex applications for the iPhone was conducted. Below are four Pokédex applications that have been studied carefully to answer the following questions:

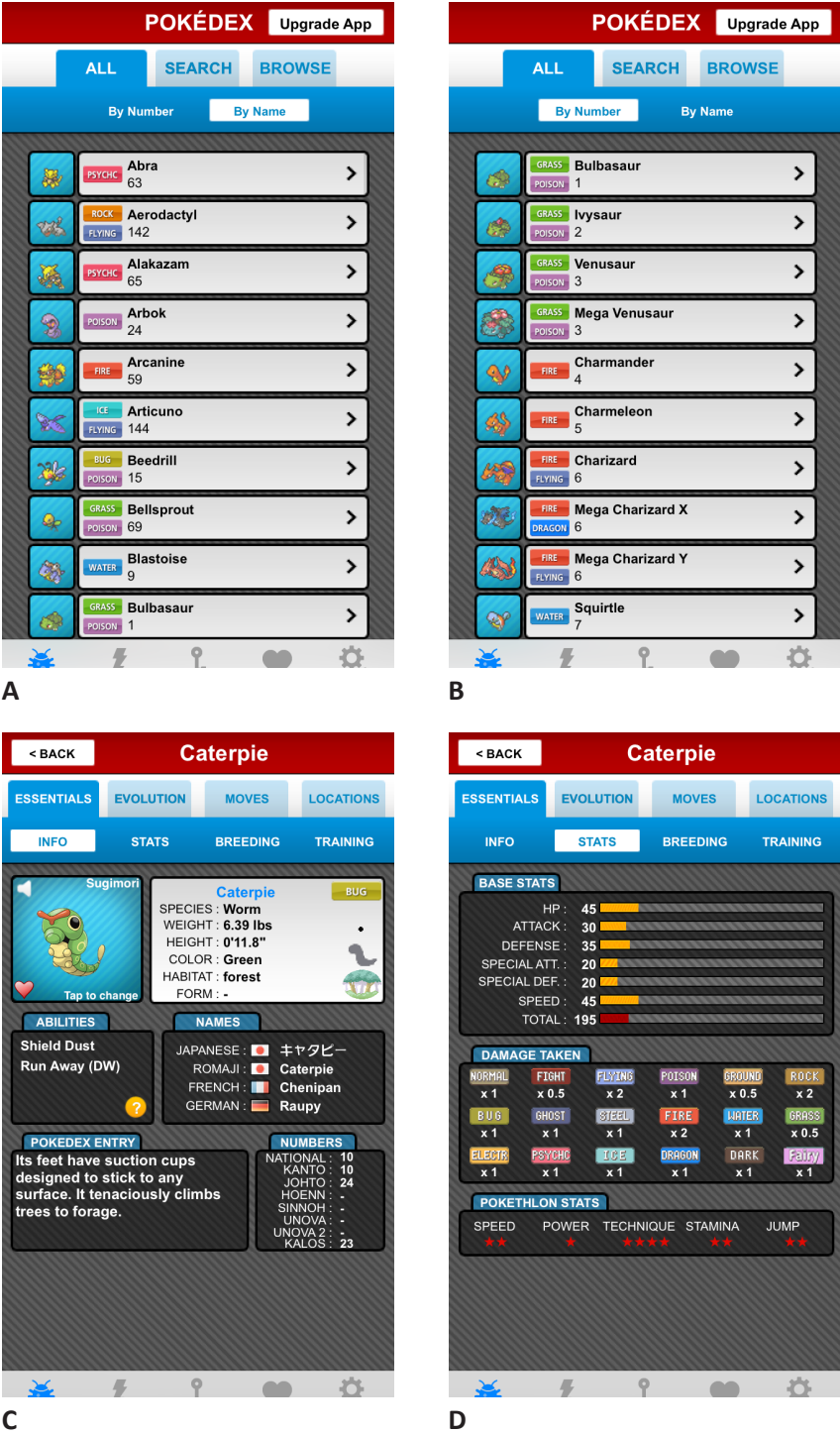
What style layout was used?

What color scheme was used?

What features were included, or eliminated in the application?

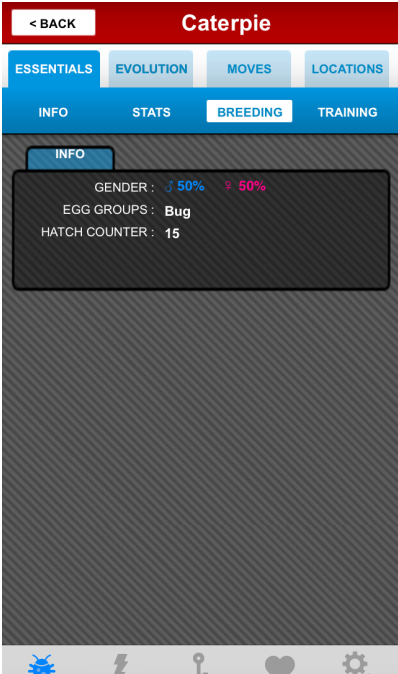
FIGURE 10

The “Ultradex for Pokémon” application for the iPhone.<sup>11</sup>



11. Slimi Houssam. “Ultradex for Pokémon.” Apple App Store. Version 3.0 (2013).

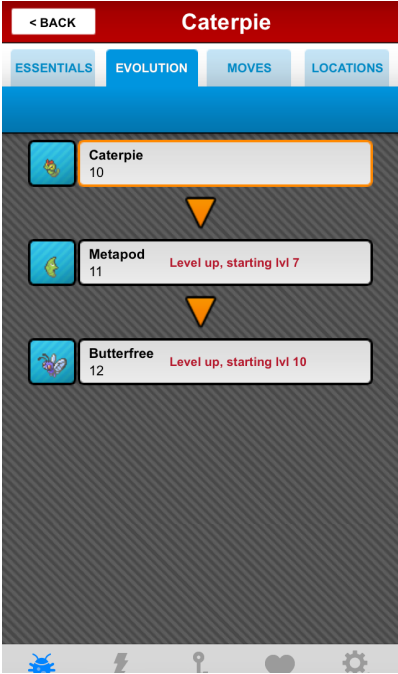
FIGURE 10



E



F

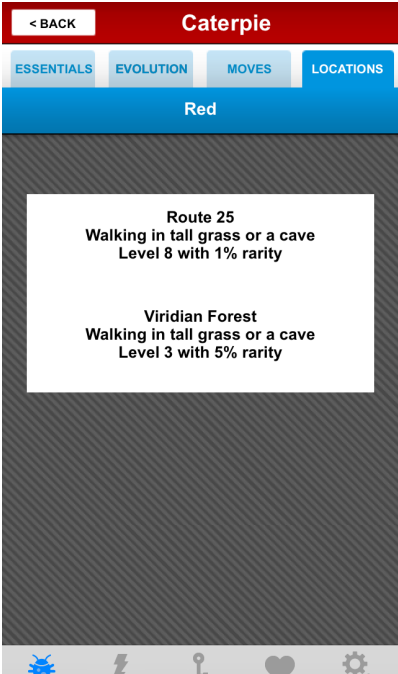


G



H

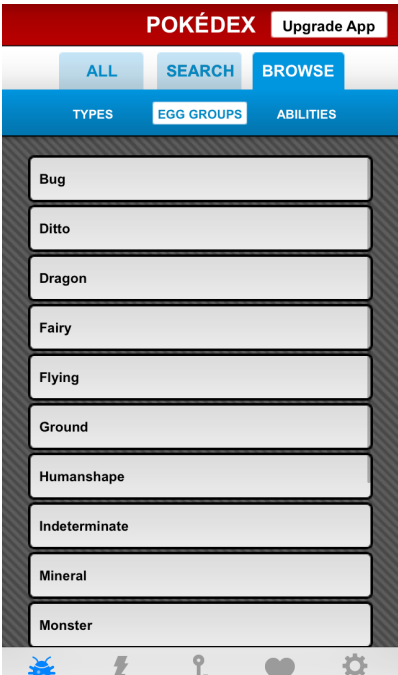
FIGURE 10



I



J



K



L

The first mobile Pokédex application critiqued is “Ultradex for Pokémon” by Slimi Houssam.

**What style layout was used?**

The chosen layout structure was a single column grid with the navigation system at the top of the screen, a sub-navigation system underneath it, and a secondary navigation system at the bottom. As shown in FIGURE 10C, containers envelop each content section and are placed side by side if room permits. In FIGURE 10D, a secondary grid structure was not established because there are two columns in the “Base Stats” section, six columns in the “Damage Taken” section, and five columns in the “Pokethlon Stats” section.

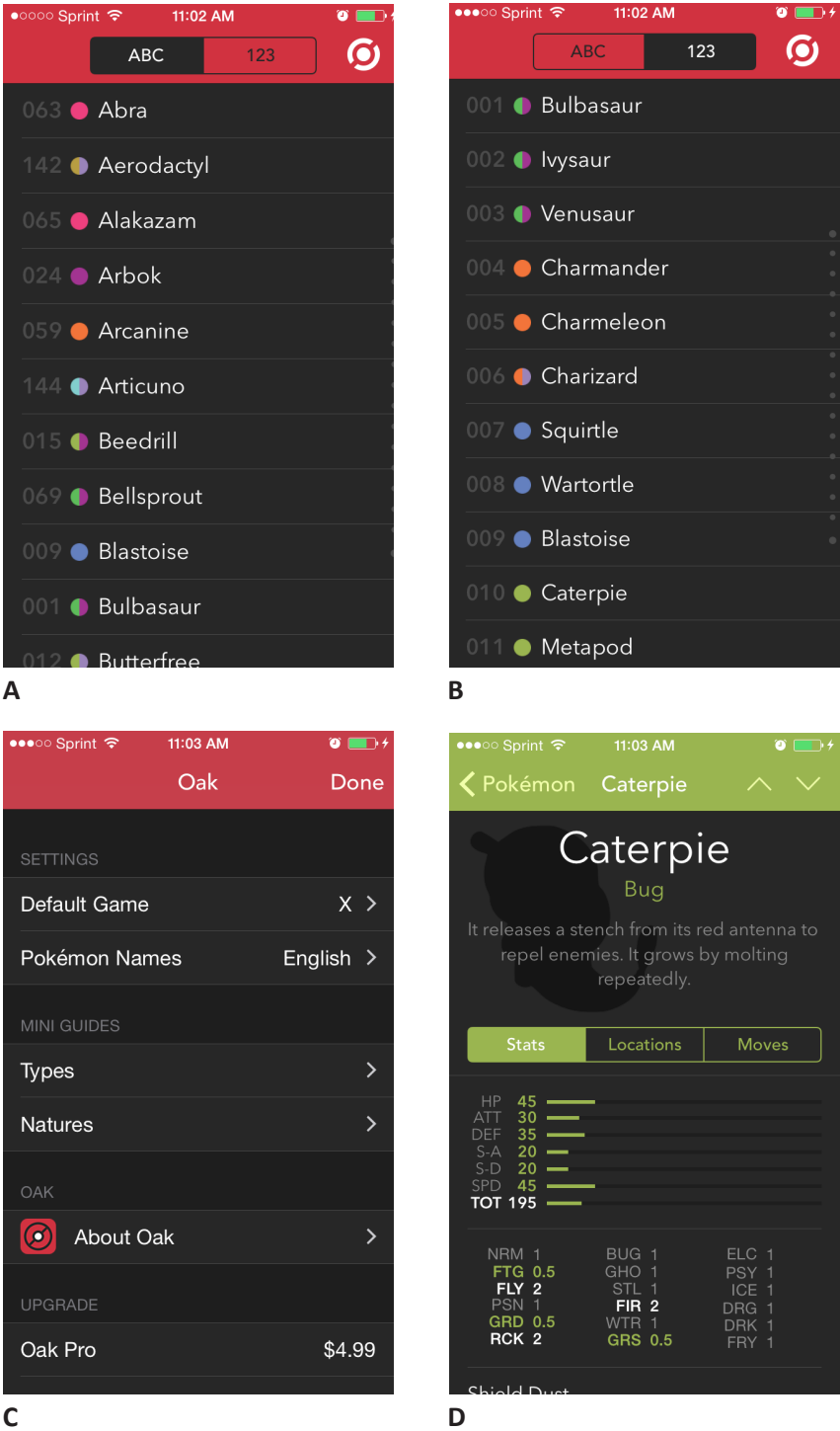
**What was the color scheme?**

Red, white, blue, gray, and yellow were the chosen colors for this mobile application. While these colors are appropriate, the placement of each color does not work in harmony to create a visual hierarchy.

**What features does the application include and eliminate?**

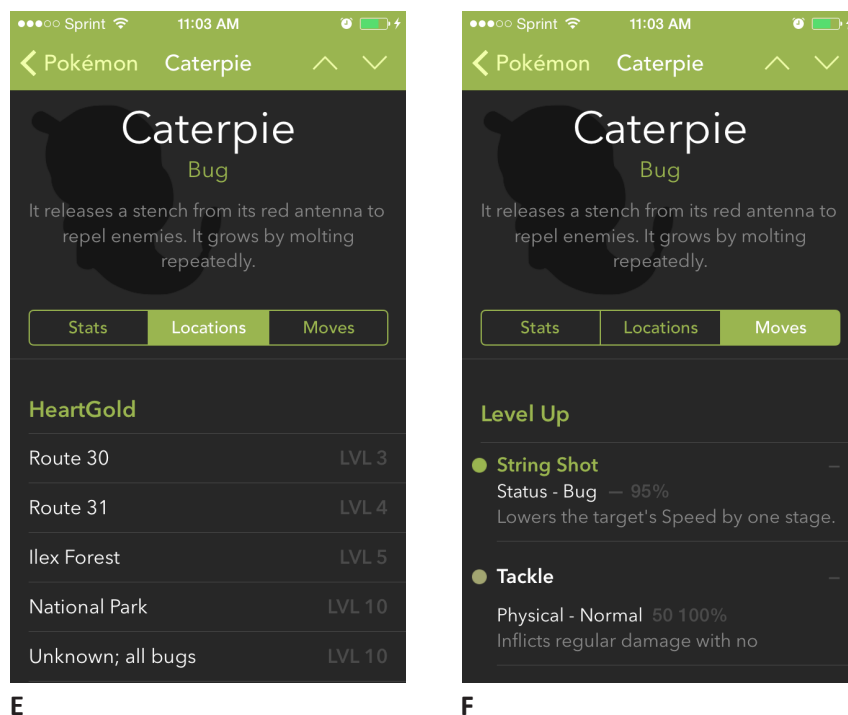
Additional content was added to the application such as the statistics, breeding, training, evolution, and move set of a Pokémon. Houssam also included a movedex and itemdex which provides information to the user about certain moves and items that can be obtained.

**FIGURE 11**  
The “Oak”  
application for  
the iPhone.<sup>12</sup>



12. Caleb Thorson. “Oak.” Apple App Store. Version 1.2 (2013).

FIGURE 11



The second mobile Pokédex application critiqued is “Oak” by Caleb Thorson.

#### What style layout was used?

Thorson also uses a single column structure, but opted for paragraph rules and color to separate the content instead of containers. This gives the content a streamline appearance making it easier for users to skim for desired information.

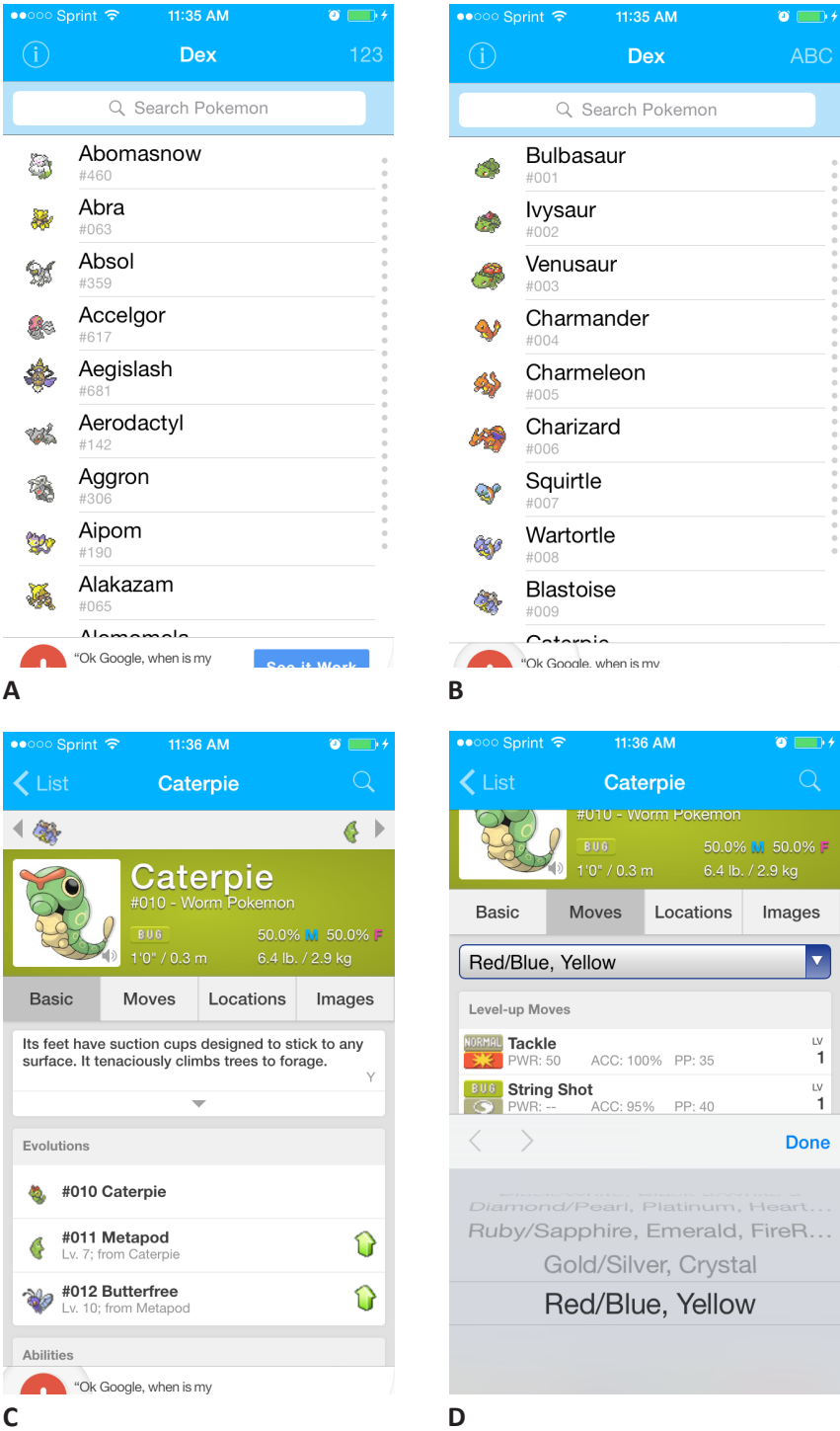
#### What was the color scheme?

Red, gray, and white are the primary colors of the application. However, the colors are saturated and only appear on the first page as shown in FIGURE 11A and FIGURE 11B, and on the settings page in FIGURE 11C. Otherwise, each entry was recolored to reflect the elemental type of the Pokémon as show in FIGURE 11D-11F. This choice of color design and representation was interesting; however, the primary colors of the application could be reused to execute a consistent Pokémon theme.

#### What features does the application include or eliminate?

This application did not deviate from the original Pokédex found within the Pokémon games, but additional content was added that included the statistics, special abilities, breeding, move set, and elemental type damage of a Pokémon.

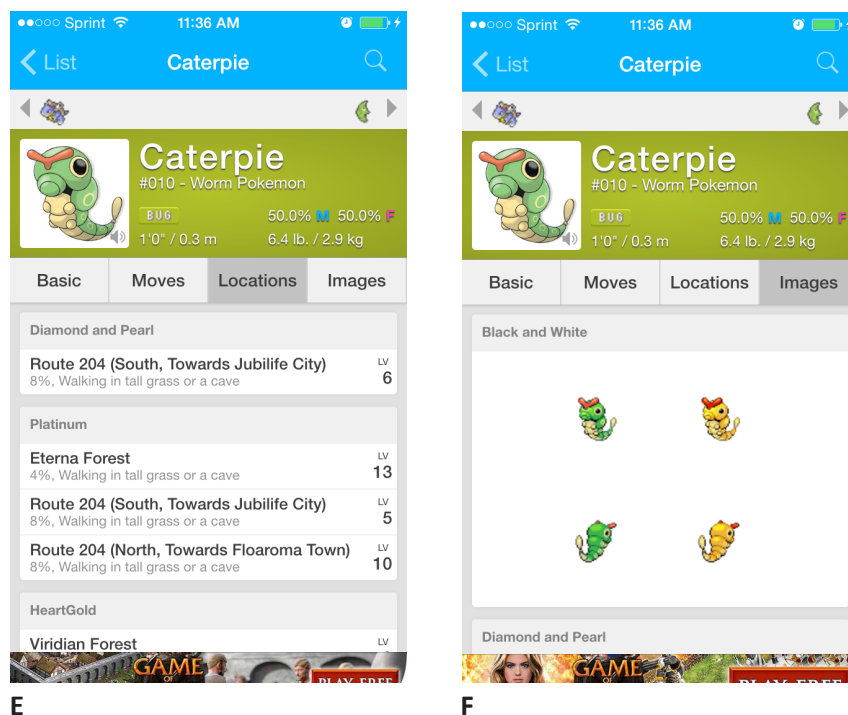
**FIGURE 12**  
The “PokeDream  
Dex” application  
for the iPhone.<sup>13</sup>



13. Wei Yeh. “PokeDream Dex.” Apple App Store. Version 2.2 (2014).



FIGURE 12



The third mobile Pokédex application critiqued is “PokeDream Dex” by Wei Yeh.

### What style layout was used?

A single column structure was chosen for this application. A navigation system is placed along the top of the screen, and boxed containers hold each section of information. This structure is similar to the “OAK” application, but instead of paragraph rules to separate the content boxed containers are utilized instead. These boxed containers create a degree of separation not necessary for like information.

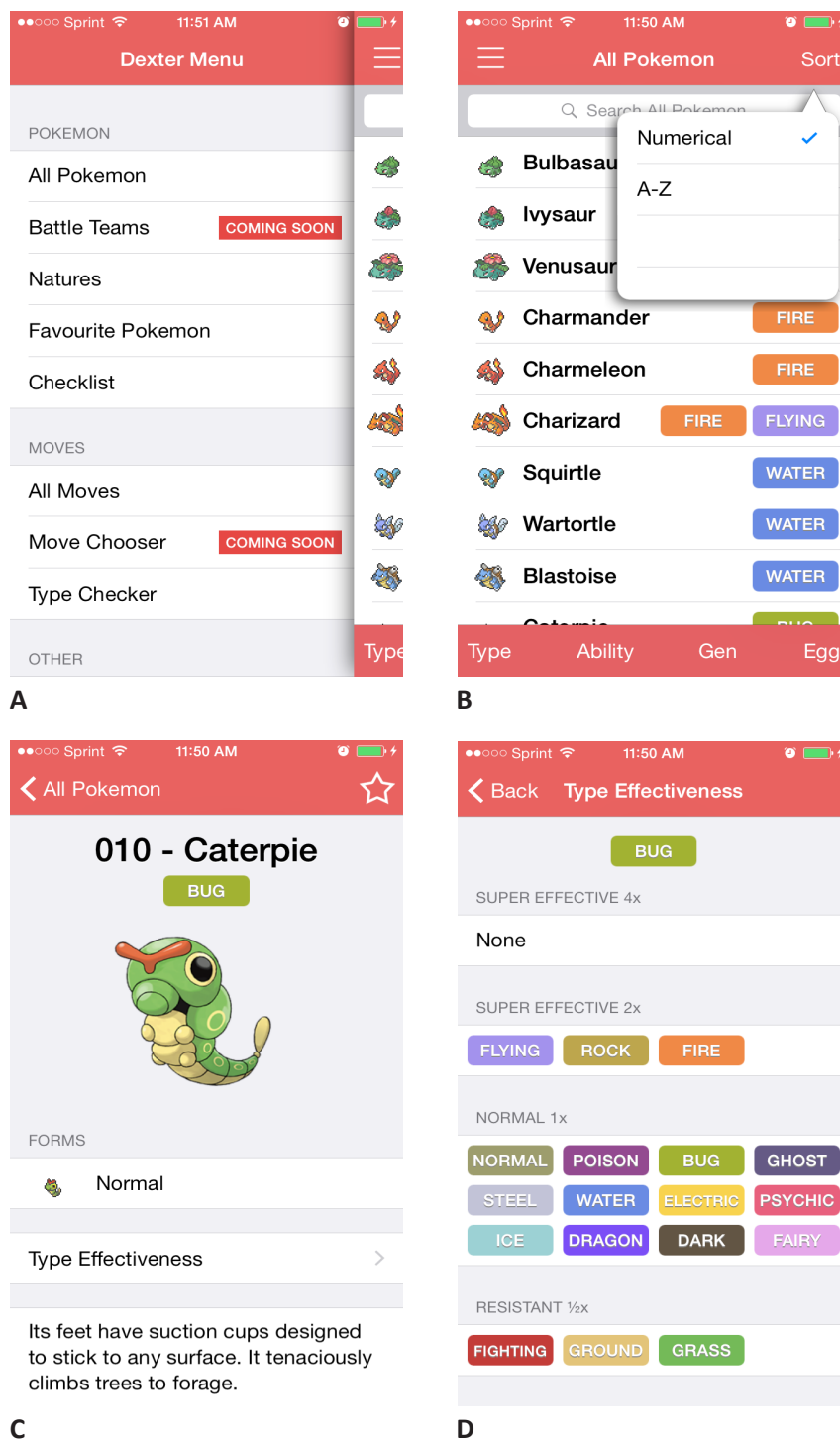
### What was the color scheme?

Blue, white, and gray were the primary colors, but they do not create an effective visual hierarchy. Other colors are introduced when the user views each Pokémon entry. The top banner of each Pokémon entry is recolored to reflect the elemental type of the Pokémon as shown in FIGURE 12C-12F, but the elemental color does not appear elsewhere within the entry. This design choice begins introducing too many colors at once since the bar at the top of the application still remains blue.

### What features does the application include or eliminate?

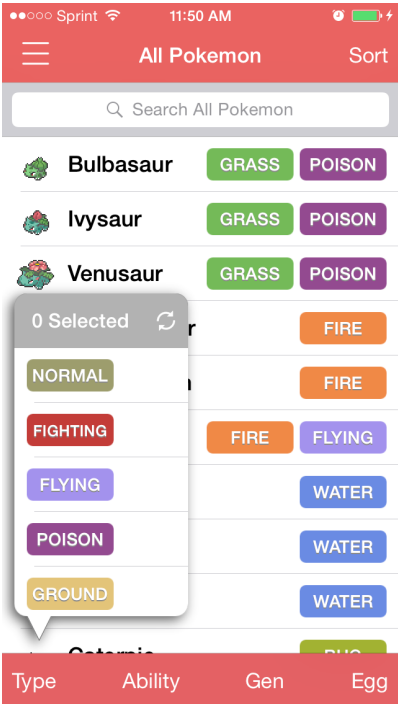
This application includes additional content such as the statistics, abilities, breeding, move set, evolution, and elemental type damage of a Pokémon.

**FIGURE 13**  
The “Dexter - A Pokédex” application for the iPhone.<sup>14</sup>

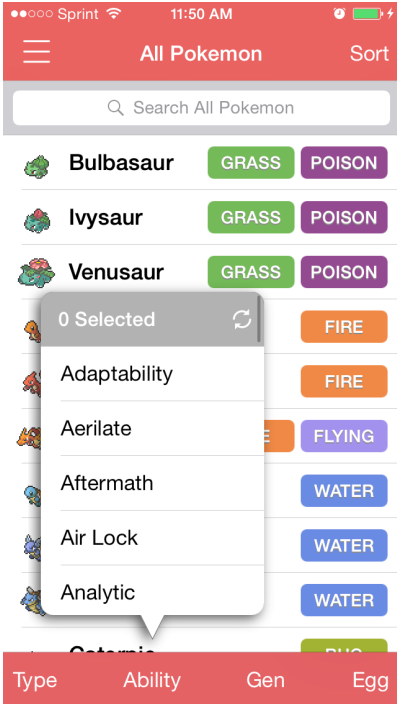


14. Chris Pritchard. “Dexter - A Pokédex.” Apple App Store. Version 1.3 (2014).

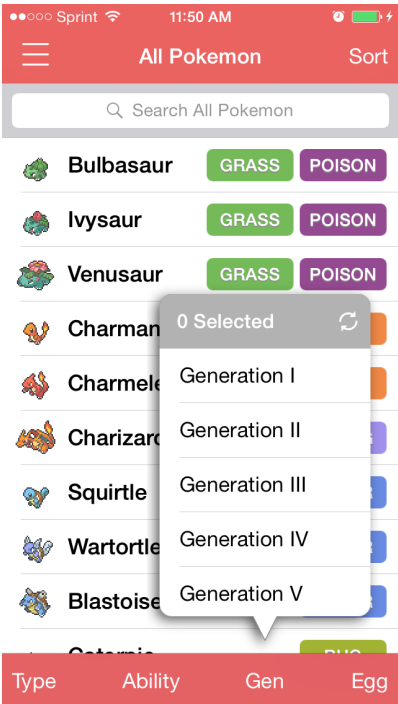
FIGURE 13



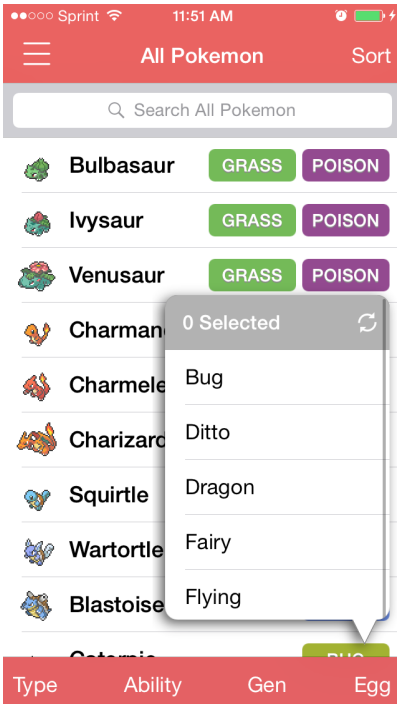
E



F



G



H

The fourth mobile Pokédex application critiqued is “Dexter - A Pokédex” by Chris Pritchard.

**What style layout was used?**

A single column structure was chosen for this application with a sub-grid system of two columns. In FIGURE 13B, the left column contains the avatar with the name of the Pokémon and the right column contains the elemental type of the Pokémon. However, once the user views the data entry shown in FIGURE 13C and FIGURE 13D, it rotates between a single column layout and a four column layout.

**What was the color scheme?**

The color scheme was composed of gray, white, and a peach red color. Due to the low levels of saturation, these soft colors are gentle on the eyes and they capture the viewer’s attention. Unfortunately, with the added colors of the elements, the colors clash and render the visual hierarchy useless.

**What features does the application include or eliminate?**

This application includes additional content such as the statistics, abilities, breeding, move set, evolution, and elemental type damage of a Pokémon. These additional features and their presence on the main page of the application overwhelm the layout design with unnecessary information. These are more of search options than actual information, and should be combined with the search function located at the top of the application.

The layout style between these previous two applications remained the same. Each application was designed as a single column layout. The application proposed in this thesis project appears on the same media device as these applications, so it is best to treat this project in a similar manner.

# The Process | Page Layout

The development of the Connex application combines the core features built into the contact list of an Apple iPhone with the design aesthetics and core features of the Pokédex.

## **Apple iPhone Features:**

- A contact list
- A profile page for each contact
- A search feature
- A favorites section
- A picture of the contact
- An icon for adding a new contact
- An icon for editing a contact
- An icon for deleting a contact
- An icon for calling, messaging, and facetimeing a contact
- An icon for each social media page the contact has

## **Pokédex Features:**

- A “seen and obtained” indicator
- An icon to record and playback the “cry” of a contact
- A map indicating the current residence of a contact
- A “caught” icon indicating that the contact entry has been completed
- An elemental type
- A numerical number
- A rating icon that tracks a user’s progress of completing a data entry

All the core features listed above were categorized according to which features were best represented through text and which were best represented through visual icons and colors.

## **Text Representation in the Connex:**

- A contact list
- A profile page for each contact
- A search page
- A favorites page
- A “seen and obtained” indicator
- A numerical number

## **Icon Representation in the Connex:**

- A picture of the contact
- An Icon for adding a new contact
- An icon for editing a contact
- An icon for deleting a contact
- An icon for calling, messaging, and facetimeing a contact
- An icon for each social media page the contact has
- An icon to record and playback the “cry” of a contact
- A map indicating the current residence of a contact
- An indicator for tracking the progress in terms of completion

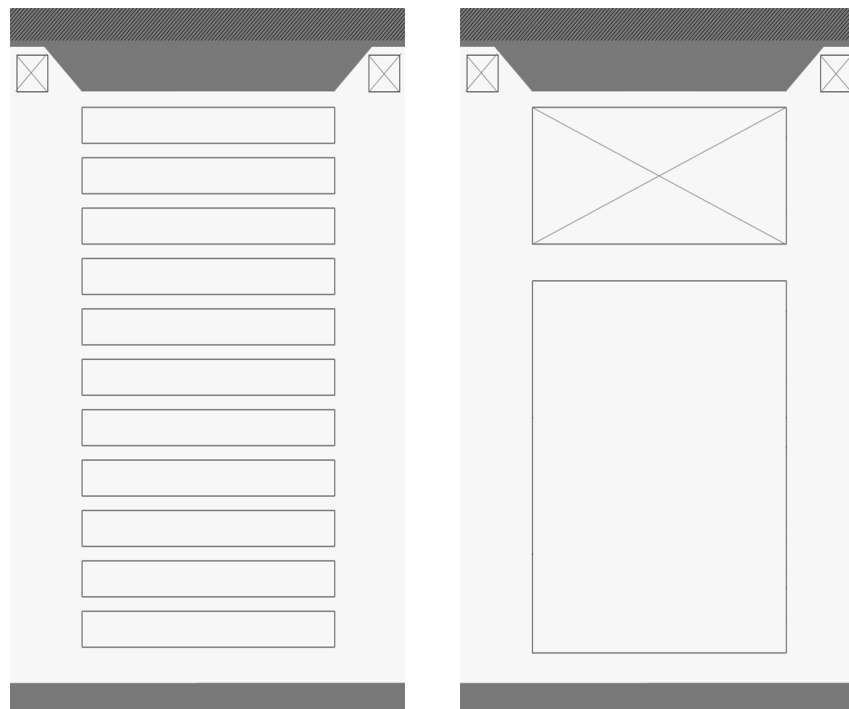
**Color Representation in the Connex:**

An indicator for tracking the progress in terms of completion

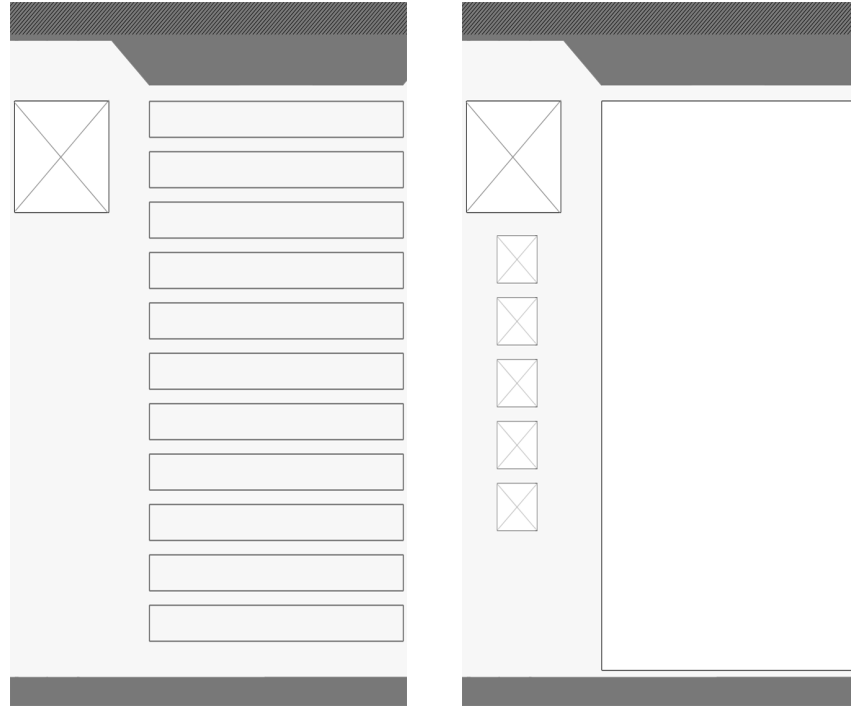
An elemental type

FIGURES 14-16 show basic wireframe sketches of the Connex application homepage and the contact profile page.

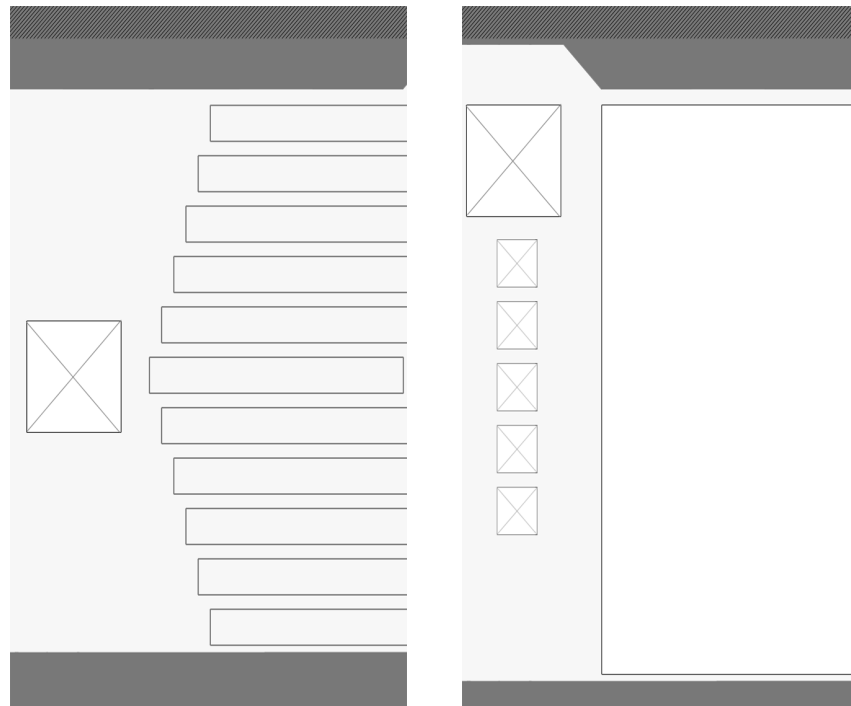
**FIGURE 14**  
**Layout Style 1**



**FIGURE 15**  
**Layout Style 2**



**FIGURE 16**  
**Layout Style 3**



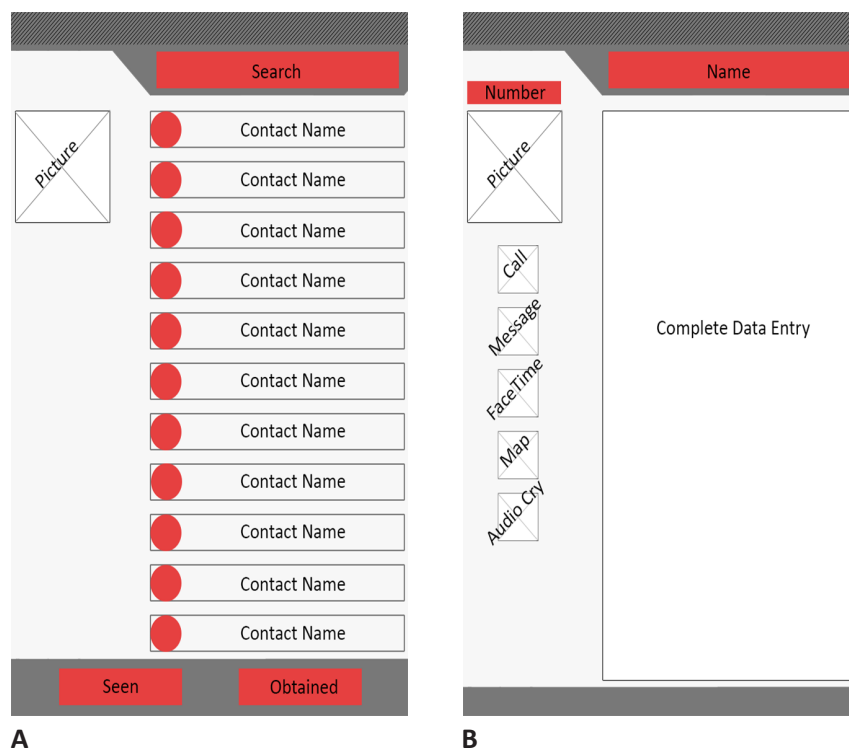
Numerous variations of layout styles were further developed to the point of failure in an effort to test the conduciveness for the information appearing in the application.

In FIGURE 14, the center alignment gave the content range without pushing information to the edges of the screen. However, the design of Layout Style 1 limited the screen real estate available which caused certain features and content to be eliminated. See Appendix A on page 126 for high fidelity wireframes.

FIGURE 15 showed the maximum potential to replicate the look and feel of a Pokédex due to the layout structure and consistency with the placement of information. Layout Style 2 also offered the most screen real estate which allowed for each feature to be included in the application.

In FIGURE 16, the angled contact list offered a unique style and approach to present a list of content. However, the design of Layout Style 3 created considerable amounts of white space at the top and bottom of the page in the left column. Another disadvantage of this design was it could not be duplicated throughout the remaining pages of the application. See Appendix B on page 127 for high fidelity wireframes.

**FIGURE 17**  
**Layout Style 2.A**





Layout Style 2 was chosen for further development for this thesis project, and FIGURE 17 showed the continued development of the basic wireframe structure. The homepage and contact profile pages were populated with content and icon placements. The white space created underneath the picture icon in FIGURE 17A created a visual imbalance. In FIGURE 18, three mock icons were added in an effort to reduce the amount of white space.

**FIGURE 18**  
**Layout Style 2.B**

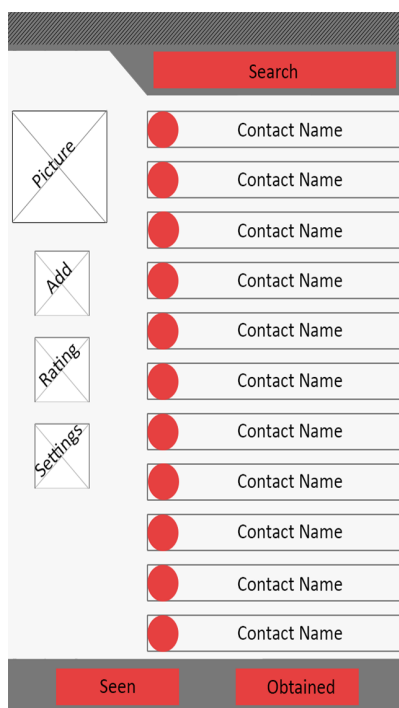


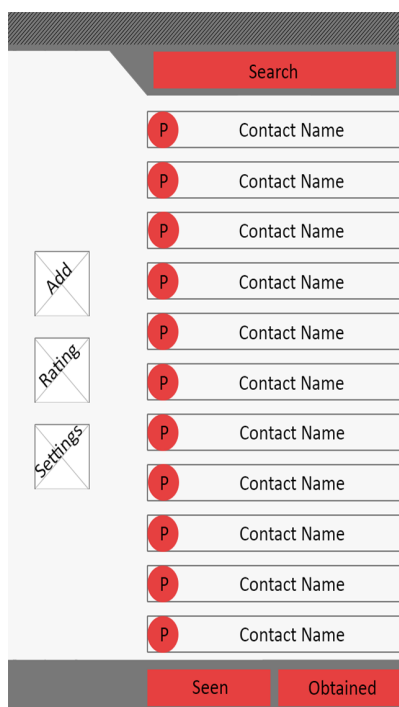
FIGURE 18 shows the placement of three mock icons added to the application to reduce the amount of white space. However, the icons had carried a negative side effect on the layout. The unified look of the layout was diminished due to the size difference of the icons compared to the picture, and the icons did not compliment the media picture due to the difference in purpose.

The three mock icons shared the same purpose: they were utility icons meant to navigate the user through various features of the application. The picture was meant to visually aid the user in identifying a contact.

In-lieu-of a stand alone picture, the circles next to each contact name were updated to display a picture of the contact. This configuration was desirable as a picture of the contact often accompanies their name.

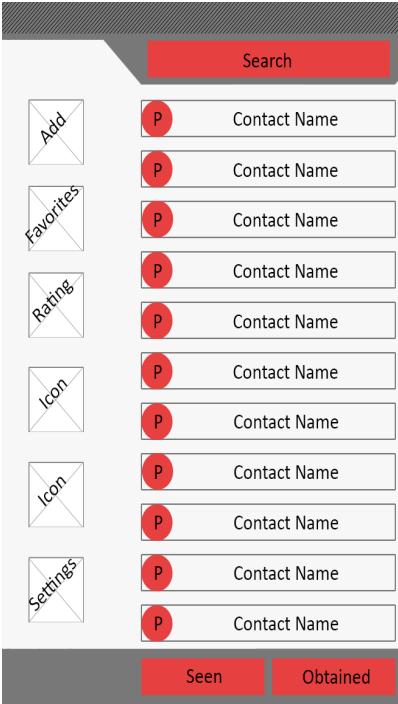
To further unify the two column layout, the “Seen and Obtained” indicators were pushed to the right to align with the left edge of the contact name containers.

**FIGURE 19**  
**Layout Style 2.C**

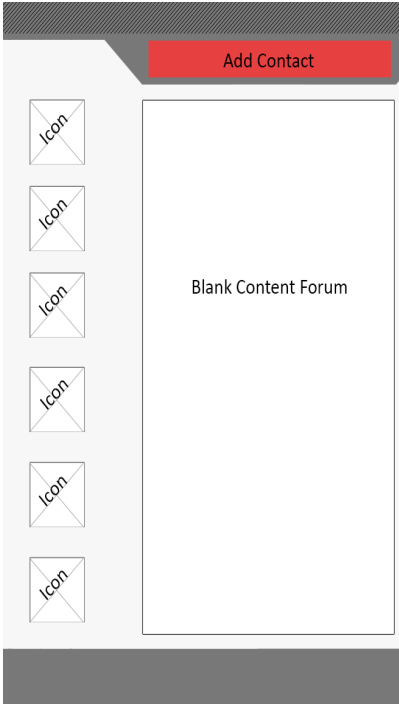


The design had a greater visual appeal and freed up the left column to add a navigation system. With the structure in place and layout refined, the remaining pages for the Connex application were ready for development.

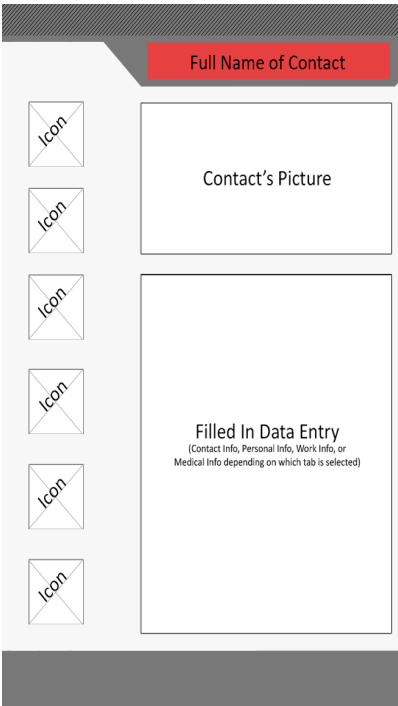
**FIGURE 20**  
**Layout Style 2.C**



**A: Homepage**

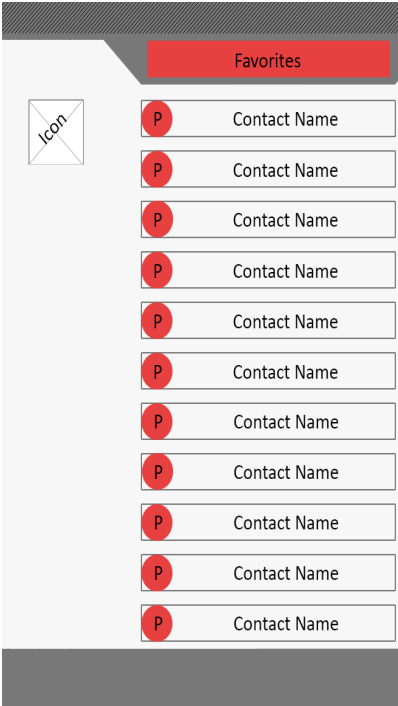


**B: Add New Contact**

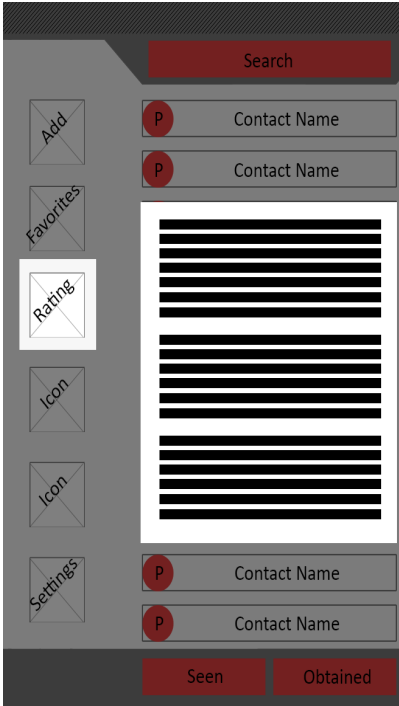


**C: Contact Profile**

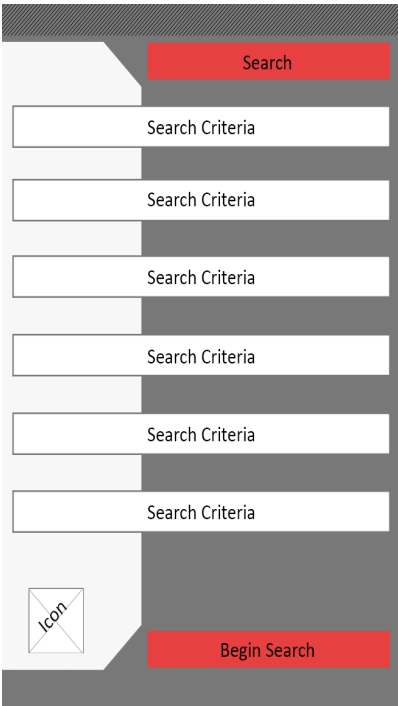
**FIGURE 20**  
**Layout Style 2.C**



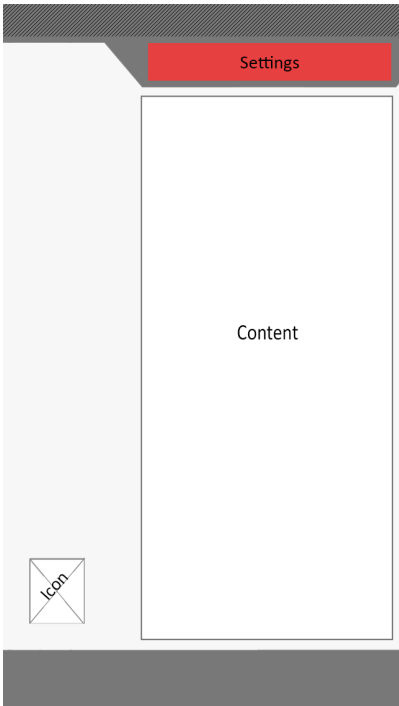
**D: Favorites Page**



**E: Rating System**



**F: Search**



**G: Settings**

By designing each page to determine content placement, a comparison between the pages was conducted for any discrepancies in the page layout. Two discrepancies were found.

The first was found in FIGURE 20F where the bar across the bottom of the screen was not straight, but angled to mirror the bar across the top of the screen. This was the only page in which this angled graphic was present. To correct this, the banner at the top of the page was mirrored across the bottom of the other pages, which helped differentiate the left column from the right.

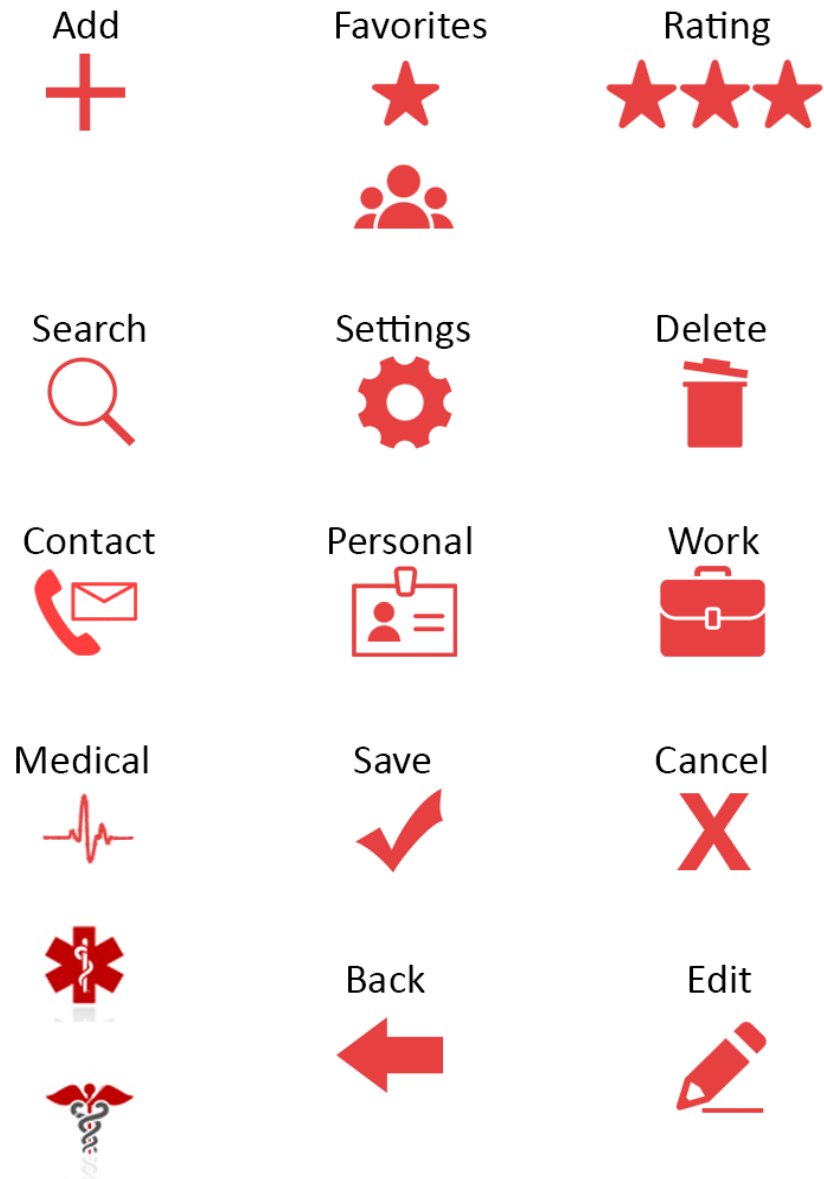
The second was found in FIGURE 20A and FIGURE 20F. In FIGURE 20A, a search bar appeared at the top of the screen which eliminated the need for a separate search page. However, a search feature on a separate page further continued the Pokédex theme. This eliminated the need for a search bar in FIGURE 20A.

Reviewing the remaining pages, each page was titled differently to let the user know where they were within the application. This is called “breadcrumbs,” and the top banner on each page has been updated to reflect the Connex application breadcrumbs.

# The Process | Icon Design

Development of the navigation icons used throughout the Connex application are shown below.

**FIGURE 21**  
Concept ideas for  
navigation icons.

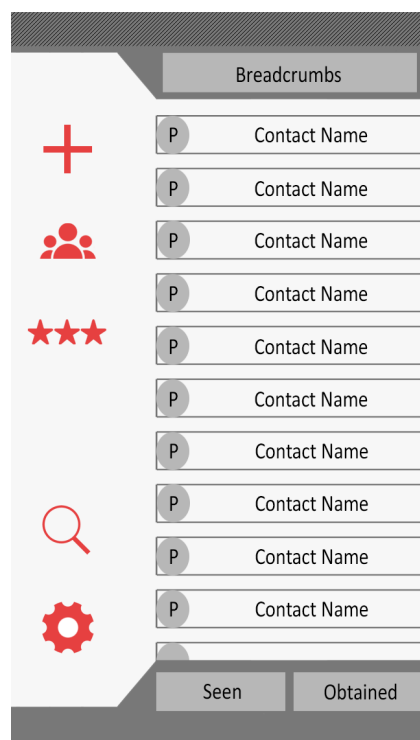


A majority of the icons chosen were standard representations of their commands; however, there were two commands with multiple choices. For the “Medical Data” icon, each symbol was well known in the medical field. However, when reduced to a 32x32 bit size icon, the basic design of the heartbeat graphic was the best option.

The symbol currently in use for the “Favorites” list feature of an Apple iPhone is a star; however, a star does not accurately represent the “party of six” game mechanic, and it conflicts with the “Rating” icon. Therefore, the multiple person icon was designed and used to indicate the “Favorites” list of the user.

Layout Style 2.C was updated to reflect the new icon designs and their preliminary placements.

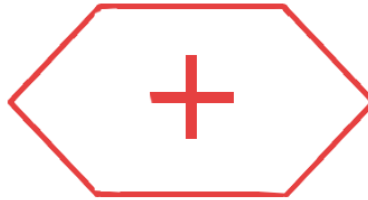
**FIGURE 22**  
Navigation  
system placed  
into Layout  
Style 2.C<sup>15</sup>



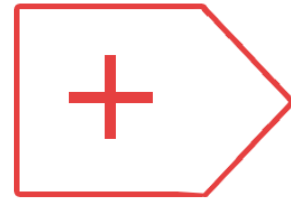
15. Icons not scaled to size.

To have the icons remain free on the page conflicted with the content in the right column. The balance of the content on the page was held within a container such as the “Breadcrumbs,” “Seen,” “Obtained,” and “Contact List.” Since the navigation menu did not have a defined edge, it disrupted the unified look and feel of the layout. In FIGURE 23, different container configurations were examined.

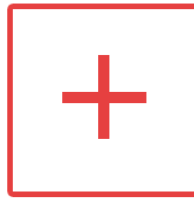
**FIGURE 23**  
Concept ideas  
for navigation  
icon containers.



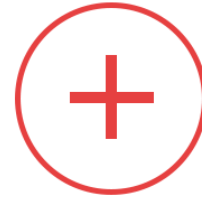
A



B



C



D



E



In FIGURE 23A, the angled edges of the top and bottom bars were repeated to reinforce the graphic element. However, this created an overwhelming sense of visual cues.

In FIGURE 23B, the angled edges only appeared on the right side, which allowed the straight edge on the left to line up with the edge of the screen. However, this arrangement appeared to guide the user's eye to an element which did not exist.

In FIGURE 23C, the angled edges were dropped in favor of a square container. However, this did not work in harmony with the rest of the layout. The left side lined up with the edge of the screen, but due to the angled edge on the right side it did not match.

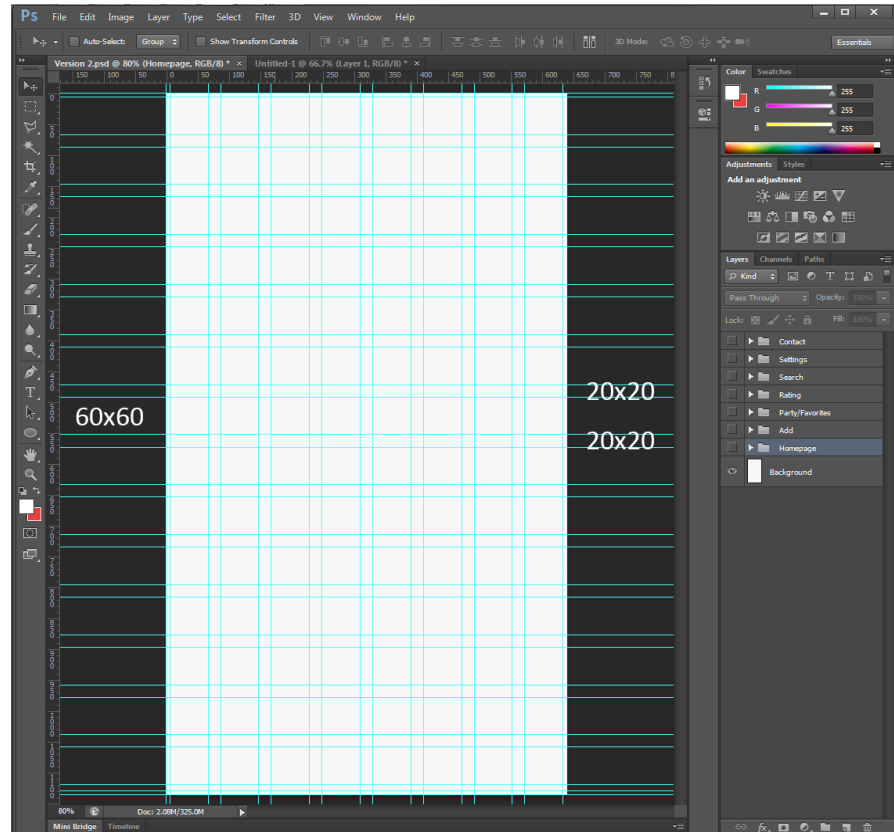
In FIGURE 23D, circular containers were used to mirror the circular pictures next to the name of each contact. This choice reiterated the circular design and strengthened the unity of the layout style.

In FIGURE 23E, the container was inverted to provide additional color and contrast. However, the increased volume of color when paired with the solid colors of the top and bottom bars affected the page negatively. It was determined to leave the top and bottom bars as the only solid color elements on the page.

With the icons in place, a grid structure for the layout was created.

FIGURE 24

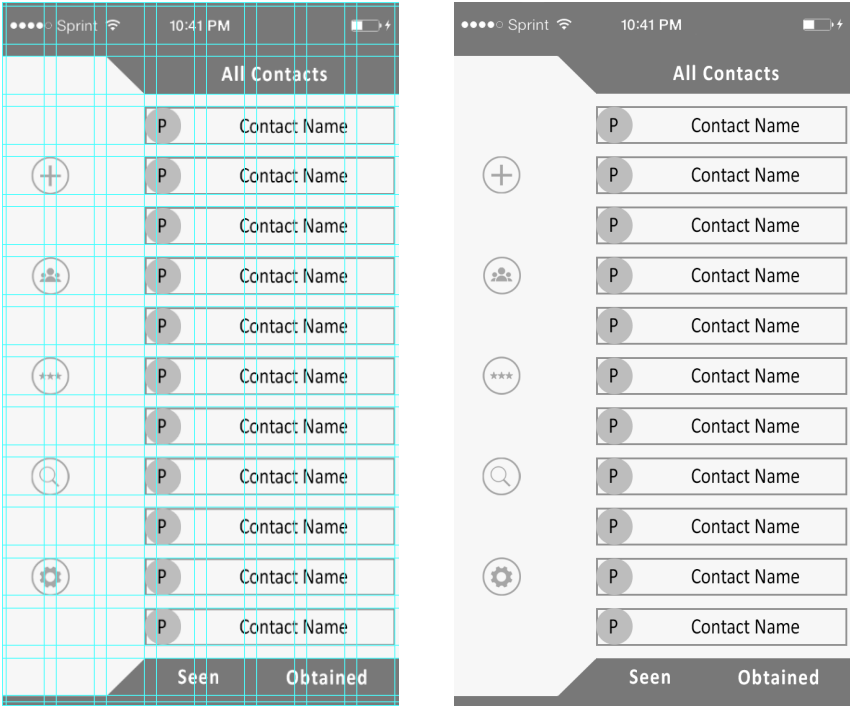
A base gridline structure to serve as the foundation for the application.



In FIGURE 24, a baseline grid structure was developed to evenly distribute the 640x1136 pixel resolution of an iPhone 5s screen. The grid structure consisted of major rows and columns at 60x60 pixels surrounded by minor rows and columns of 20x20 pixels each. The margins were set to 5 pixels.

Although this arrangement evenly distributes across the iPhone 5s screen, there were 10 unaccounted pixels located at the bottom of the screen. The remaining screen real estate was used for the bottom bar graphic as shown in FIGURE 25-30.

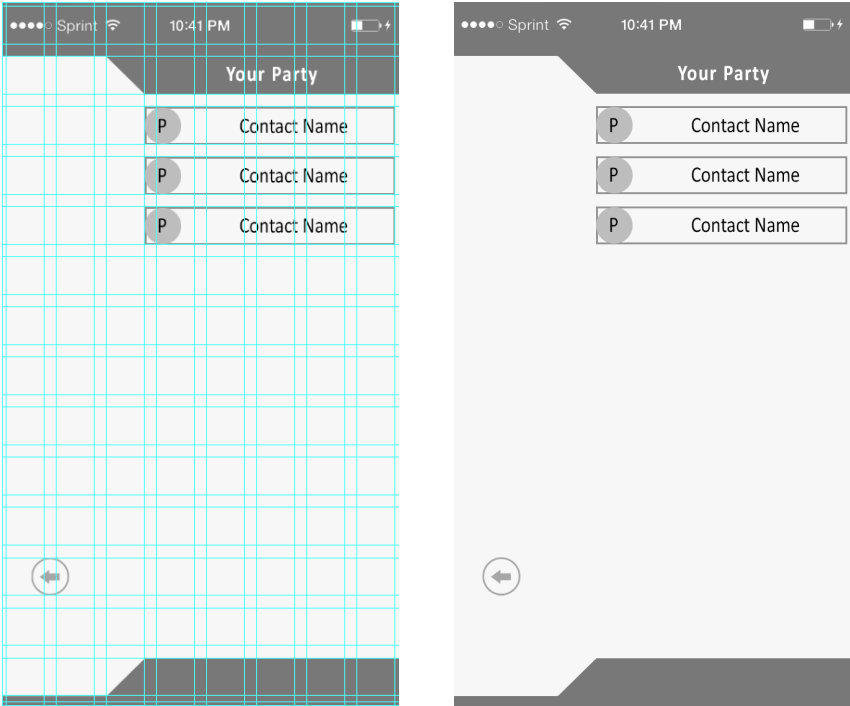
FIGURE 25



A: Homepage with Gridlines

B: Homepage without Gridlines

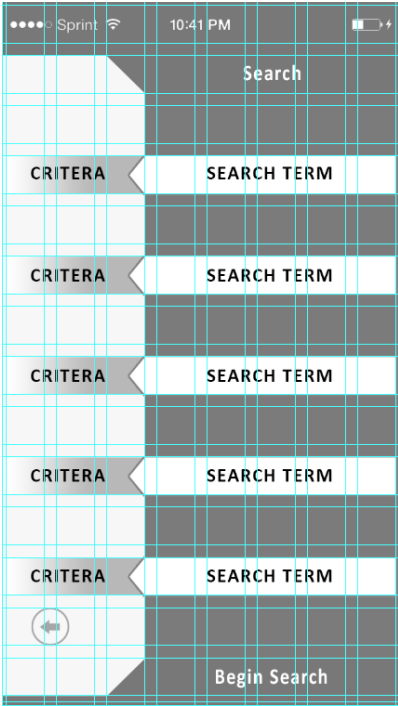
FIGURE 26



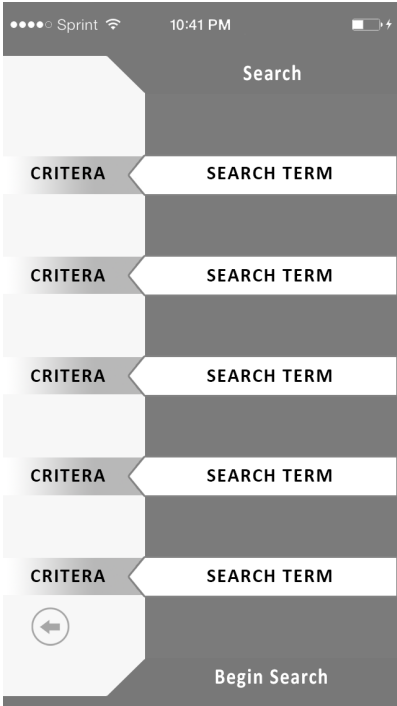
A: Favorites with Gridlines

B: Favorites without Gridlines

FIGURE 27

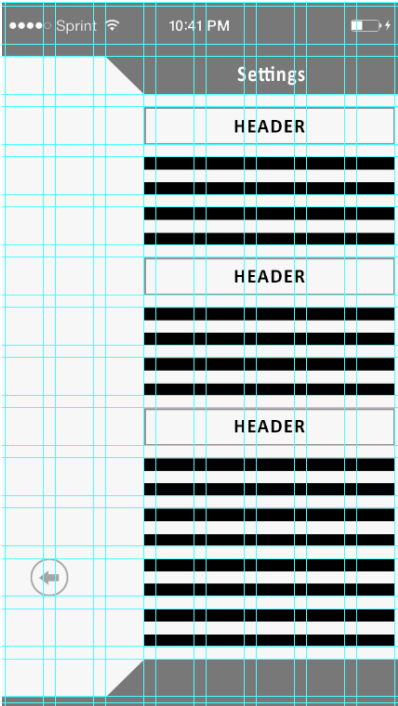


A: Search with Gridlines

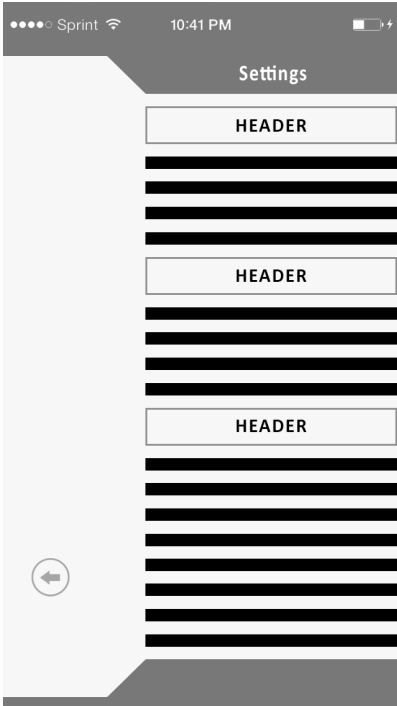


B: Search without Gridlines

FIGURE 28

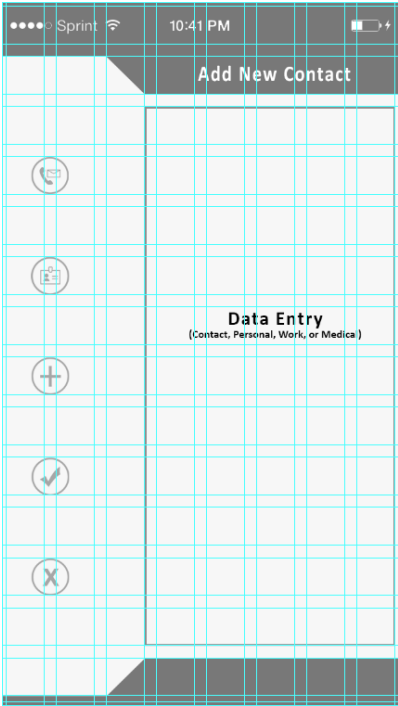


A: Settings with Gridlines

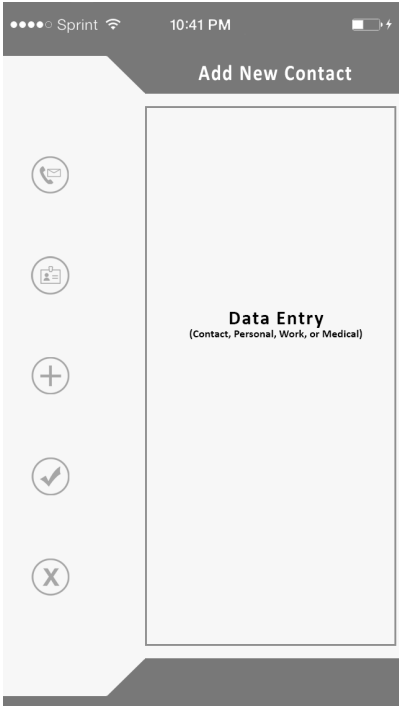


B: Settings without Gridlines

FIGURE 29

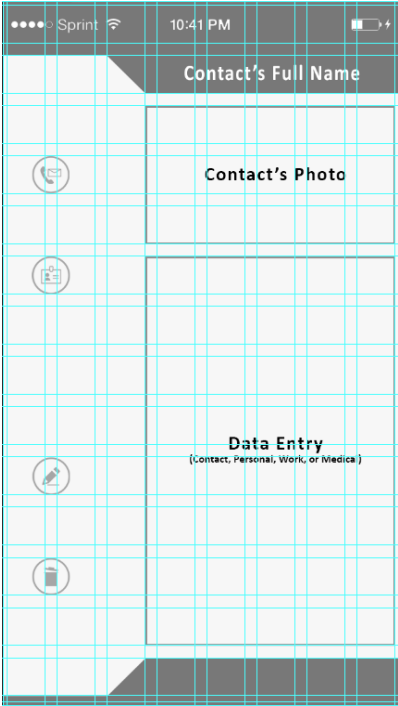


A: Add Contact with Gridlines

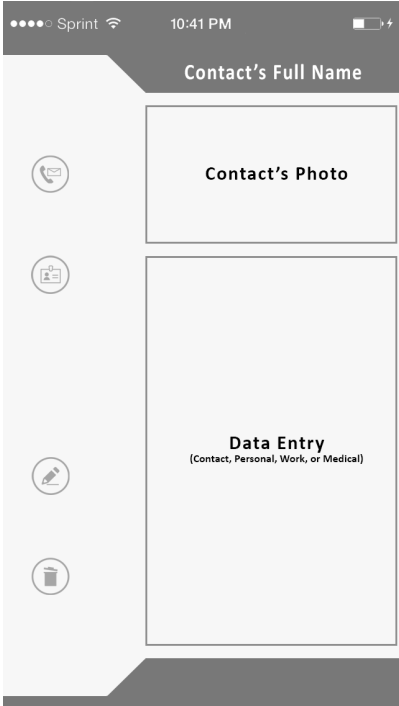


B: Add Contact without Gridlines

FIGURE 30



A: Contact Profile with Gridlines



B: Contact Profile without Gridlines

An issue arose with the spacing of the navigation icons in FIGURE 29 and FIGURE 30. The spacing of the icons did not allow for two additional features to be added.

**FIGURE 31**

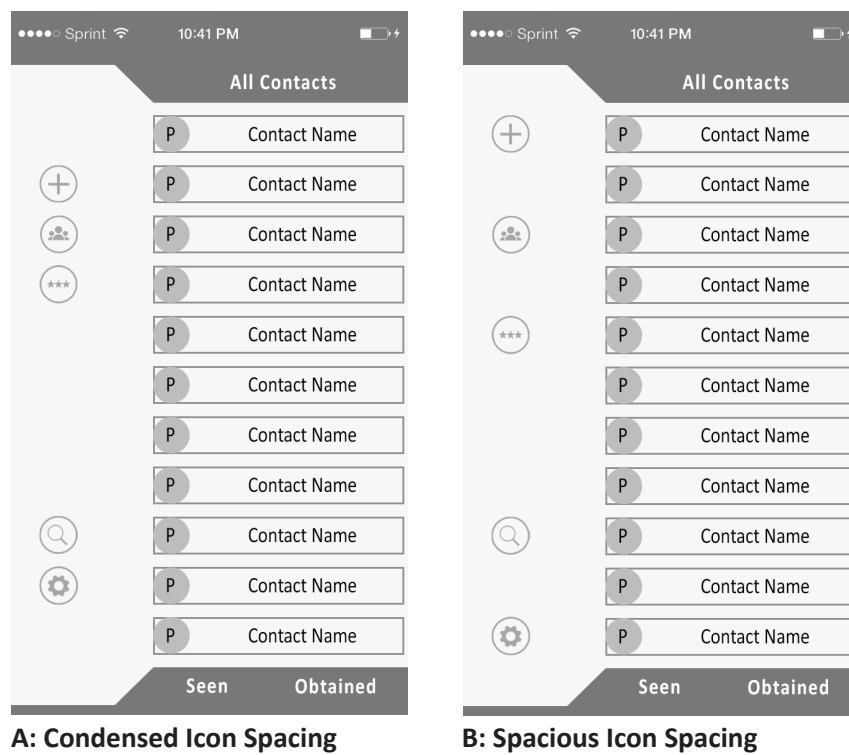
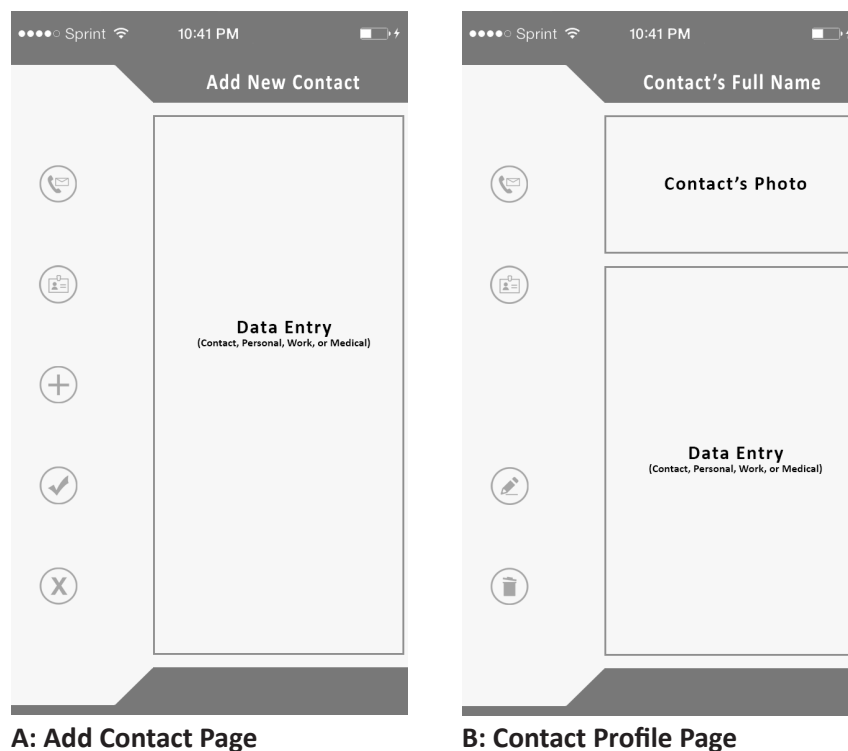


FIGURE 31A displays a condensed set of icons. However, the icons appear too condensed, and users with large fingers are going to constantly press the wrong icon.

FIGURE 31B displays a greater amount of space between the icons which moves them closer to the top and bottom of the screen. This design was favorable since the icons were aligned with the top and bottom of the “Contact List” in the right column. The design also kept the navigation menu unified across multiple pages, since some pages would need that empty space in the middle for additional features and icons.

FIGURE 32



One noteworthy item is the "Add" icon located in FIGURE 32A. By default, the "Contact" and "Personal" pages are mandatory and always appear with each new contact added. However, there are two pages available for each contact which are optional: "Work" and "Medical".

The Connex application primarily focuses on the relationship of the user with the contact, and it provides a unique way for the user to learn more about them. By tapping the "Add" icon, users can add one or both of these optional pages.

**FIGURE 33**

The addition of the “Work” icon and profile page.

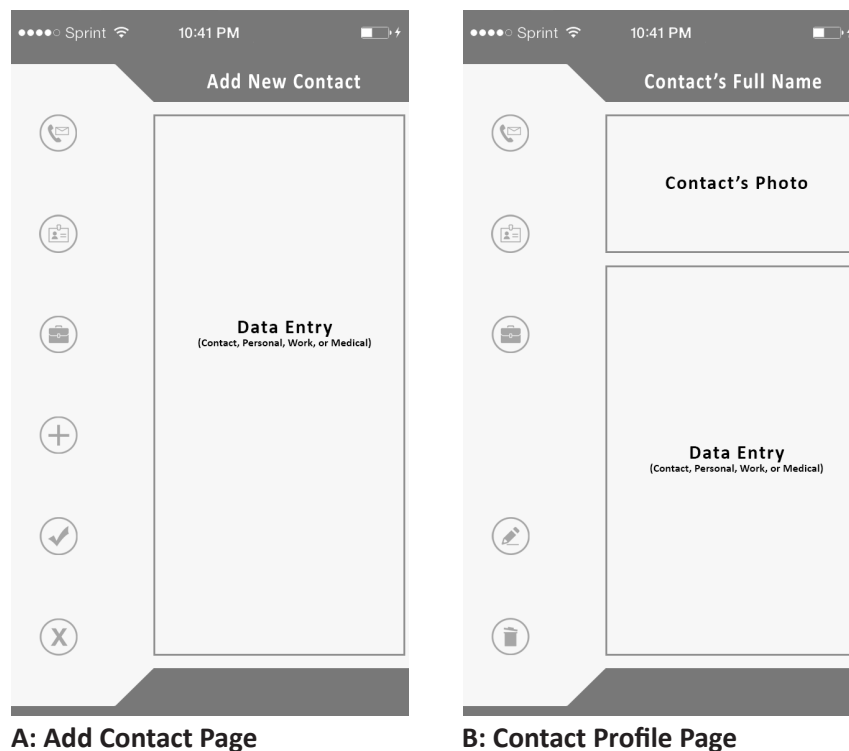


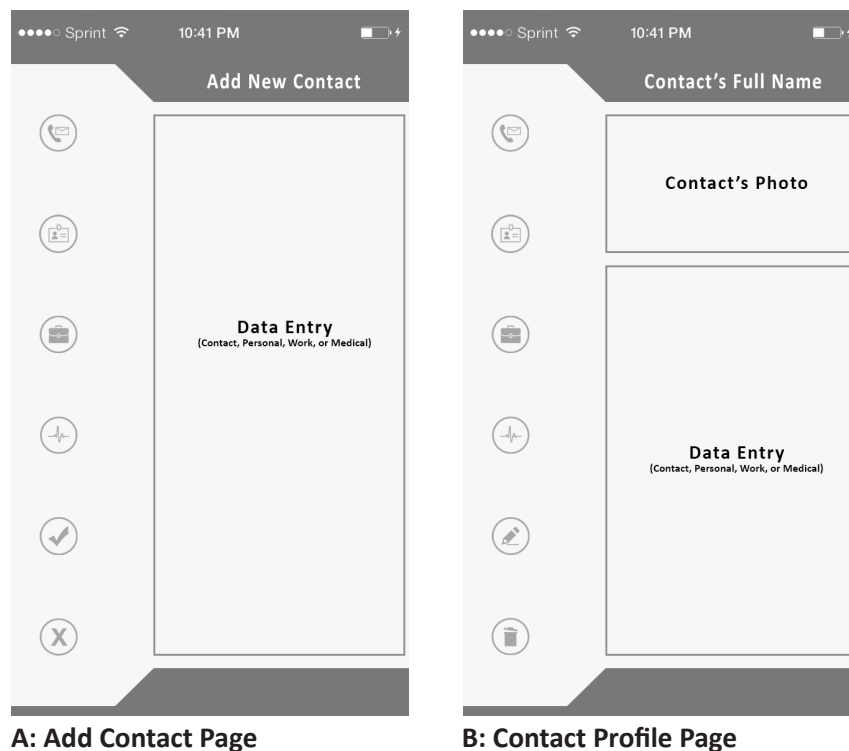
FIGURE 33A shows the “Work” icon and corresponding profile page when added to a contact entry. The navigation shown in FIGURE 33A shifted to reflect the newly added page, and various work related fields appear in the right column for users to fill in.

In FIGURE 33A, the “Add” icon shifted down one space once the “Work” page was added. If desired, the user can still add the optional “Medical” page. FIGURE 34 shows the addition of the “Medical” page.



**FIGURE 34**

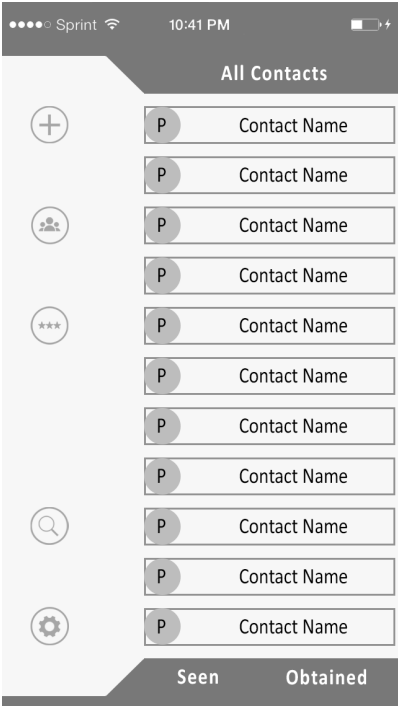
The addition of the “Medical” icon and profile page.



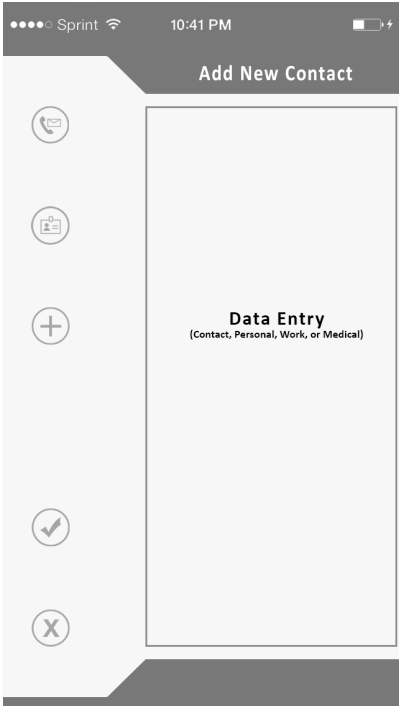
With both optional pages added, the “Add” icon disappears and is replaced with the “Medical” icon. The “Medical” page is optional, but when used allow users to input different medical information about their contacts, such as blood type, allergies, and medication. This information can save the life of an unresponsive person being rushed to the hospital in the event of an emergency.

With the two additional features added to the navigation system, the remaining pages were revised to reflect the update made to the icon spacing.

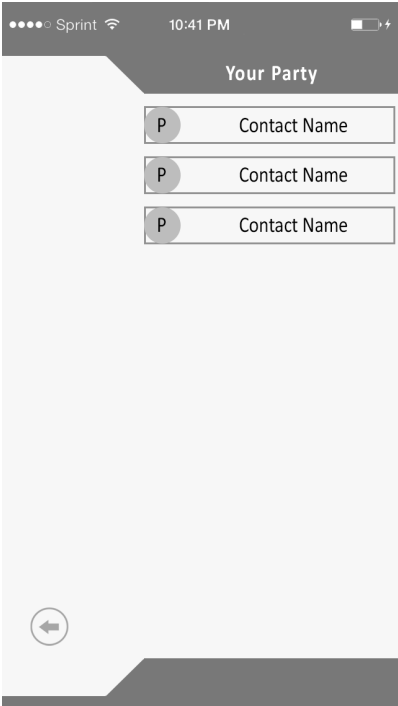
FIGURE 35



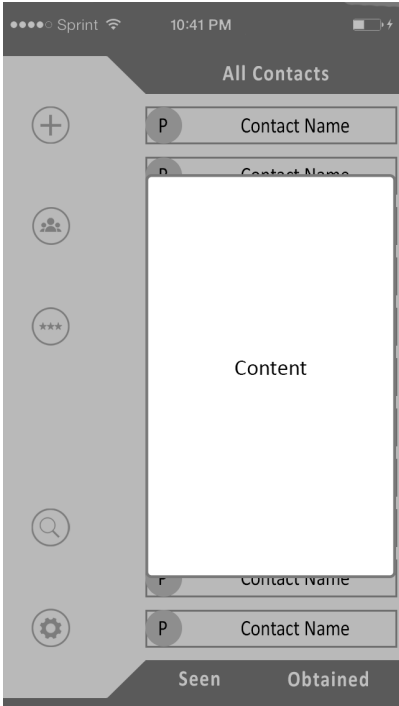
A: Homepage



B: Add Contact Page

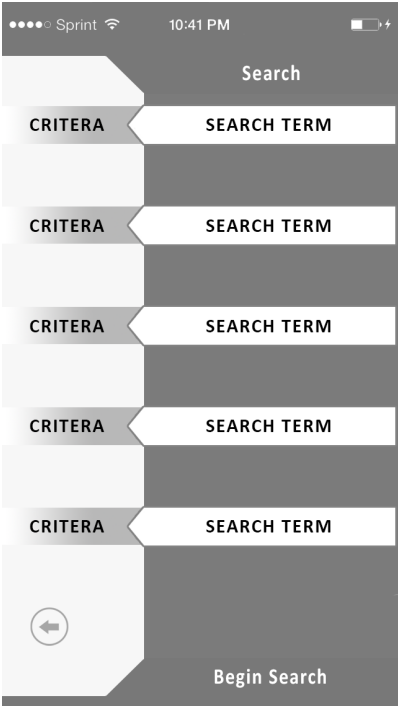


C: Favorites Page

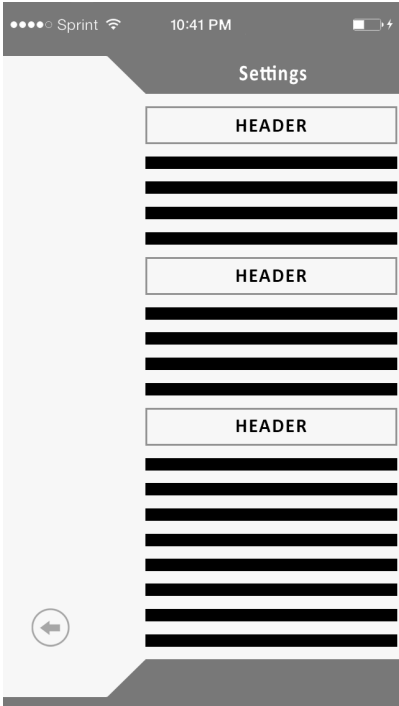


D: Rating Page

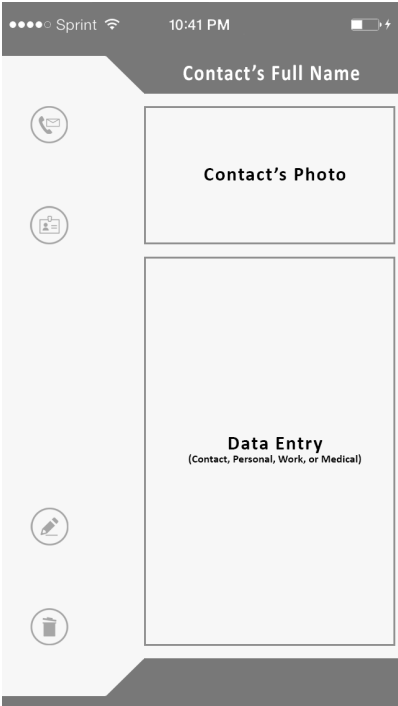
FIGURE 35



E: Search Page



F: Settings Page

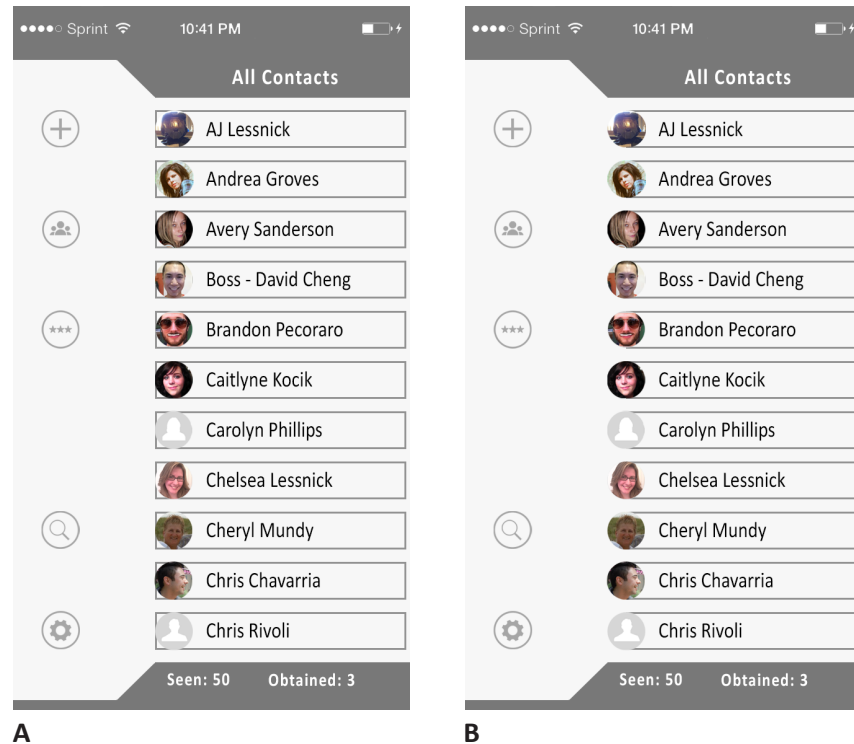


G: Contact Profile Page

# The Process | Content

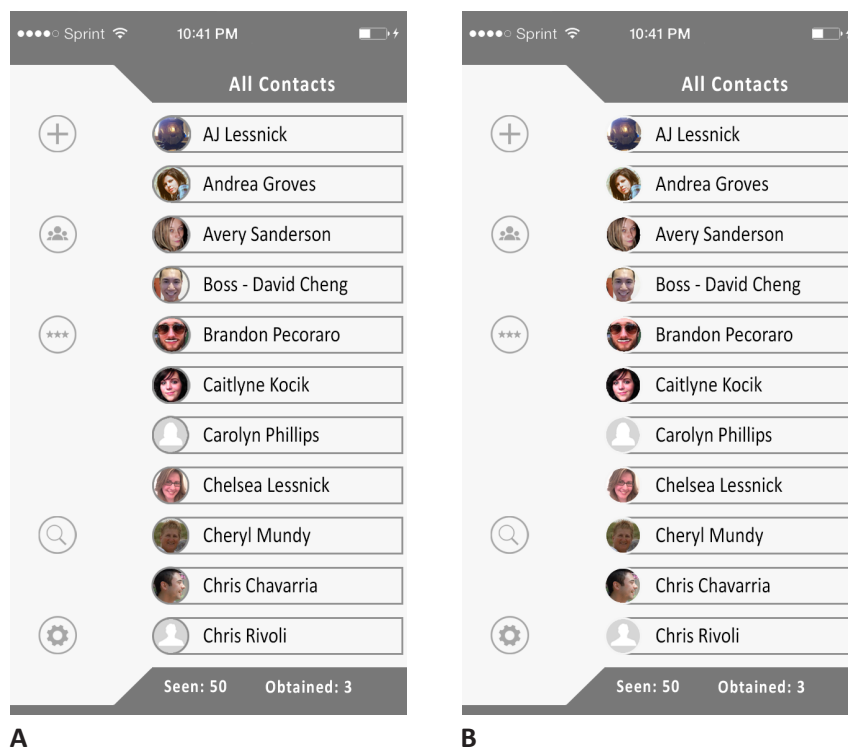
The icons and the design elements were determined and finalized within the left column layout. To complete the right column, a contact list was created.

**FIGURE 36**



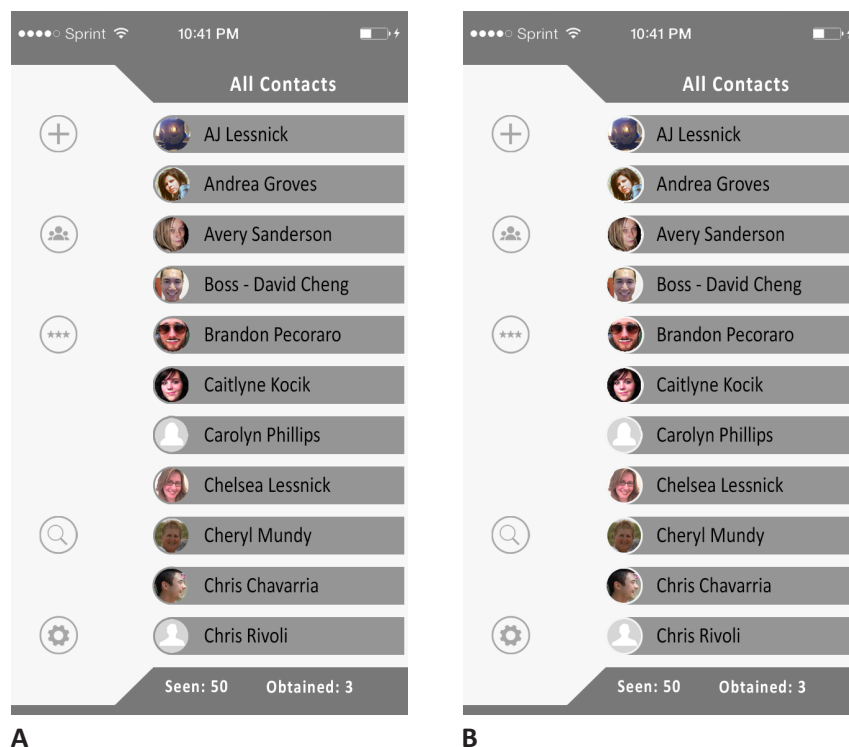
In FIGURE 36A, the edges of the contact list containers remained visible. This created an unrefined finish as small corners appeared behind the circular pictures.

In FIGURE 36B, the left edges of the container were eliminated in favor of a rounded edge. This design eliminated the unrefined finish; however, the top and bottom edges connecting with the pictures did not appear finished.

**FIGURE 37**

In FIGURE 37A, a gray border was placed around the pictures to match the edges of the container. This created a refined finish by having the edges run into the image, but added an unwanted layer of separation between the images and the contact name.

In FIGURE 37B, the color of the border around the images was changed to silver to match the background color. This eliminated both the edges connecting with the image and the layer of separation that was created in FIGURE 37A. However, an unrefined finish remained as the container edges vanished before reaching the image. This result was due to the fill color of the container being the same as the background color.

**FIGURE 38**

Overall, changing the fill color of each container helped improve the quality of the Connex application. It brought unity to the right column while providing a form of contrast against the left column.

In FIGURE 38A, changing the fill color of the containers to match the edges of the container removed the layer of separation that was created in FIGURE 37A. However, having the gray border extend around the entire image created a conflict with the colors presented in the images.

In FIGURE 38B, changing the fill color of the containers to match the edges of the container helped to bring the containers and images together despite the silver border color that separated the two. By adding the silver border, the image became an entity within the layout design while also showing its connection to the contact names, and its design connection to the navigation icons.

Over three hundred people were surveyed to determine which design choice was the most appealing. See the Summary section on page 121 for a detailed questionnaire.

The survey results shown above favor FIGURE 38A, and below are some comments from the participants:

*"I like it with the gray border because it blends with the navigation system on the left side—kind of like it goes together. It also frames them better."*  
By Melissa

*"The gray border around the images makes it look more uniformed, put together, and finished. Whereas the white border makes it appear more fun, young, and not as well put together."*  
By Taylor

*"I like the white border better. It helps the images stand out, and pop where the gray just mutes it altogether."*  
By John

Based on the feedback and participant comments regarding the pros and cons of each design, FIGURE 38B was the chosen design. The layout style contained an element of fun that FIGURE 38A lacked which deterred the Connex application from appearing formal and business oriented.

Tapping the name of a contact redirects the user to the profile page of the contact where they can browse through information. Instead of having one long scrolling page with different content, the information was separated and classified into four different pages: work information, contact information, personal information, and medical information.

**Contact Information:**

Home Phone Number  
Cell Phone Number  
FaceTime  
Message  
Email  
Ringtone  
Favorite  
Share Information  
Social Media Pages

**Personal Information:**

Data Entry  
Birth Name  
Nickname  
Gender  
Date of Birth  
Age  
Hometown  
Current Residence  
Hair Color

**Personal Information (Continued):**

Eye Color  
Height  
Weight  
Birthmarks  
Scars  
Tattoos  
Piercings  
Orientation  
Marital Status  
Personality  
Likes  
Dislikes  
Elemental Type  
Astrology Sign

The “Data Entry” and “Elemental Type” fields were included to further bring the Pokédex into the Apple iPhone. The terms “Hometown” and “Current Residence” were changed to “Place of Birth” and “Habitat” respectively to highlight the Pokédex aspect.

**Work Information:**

Employer  
Company Address  
Company Phone Number  
Position/Title  
Years of Service  
Lunch Order  
Drink Order

**Medical Information:**

Emergency Contact  
Blood Type  
Allergies  
Ailments  
Disabilities  
Medication  
Dosage  
Smoker  
Drinker  
Previous Surgeries

Similar to the Medical ID section located in the Health application on an iPhone, the medical information page is designed to compliment the Medical ID section by providing a near complete medical record in the event of an emergency.




The fields for each profile page were created, but a design had to be chosen in which to present the information. The biography section shown in FIGURE 39 is used for a Pokémon role-playing community.

FIGURE 39


A blog created on a roleplaying site, coded to present information on the Pokémon in a Pokédex-esque manner.<sup>16</sup>

JOLTEON











Appearance	Gender
	Male

#135 Pokédex Entry

"Jolteon, the Lightning Pokémon, is an evolved form of Eevee. When angered or frightened, the hairs on Jolteon's body become like needles that are fired at its opponents. It absorbs charged atoms and can produce 10,000 volts of electricity."

Species	Type
Lightning Pokémon	

Height	Weight
2'07"	54.0 lbs.

Strong Against	Weak Against	Resistant To	Ineffective Against	Uneffected By
 		 	   	

Ability	Techniques
Volt Absorb	Volt Tackle Thunder Fang Thunderbolt Thunder Pin Missile Flash Last Resort

Personality

Ever since that fateful day when Jolteon saved his Trainer, and was separated from him in the process, he always thought of himself as a strong Pokémon. In turn it led to him developing a brave nature and priding himself on his power. He loves sparing and battling because it's his way of conveying that strength to others, and as such he will never hold back on his opponent. While he loves fighting, he'll never seek out battles with other Trainers because he runs the risk of being captured; and in his mind he still belongs to the boy he saved so many years ago. Being captured would only mean that Jolteon would never be reunited with his Trainer ... and all these years of searching for him would be wasted. Many will only see the strong and independent side of him, but get underneath that hard shell of his and you'll discover a deeper, more genuine side to him that he desperately tries to keep hidden.

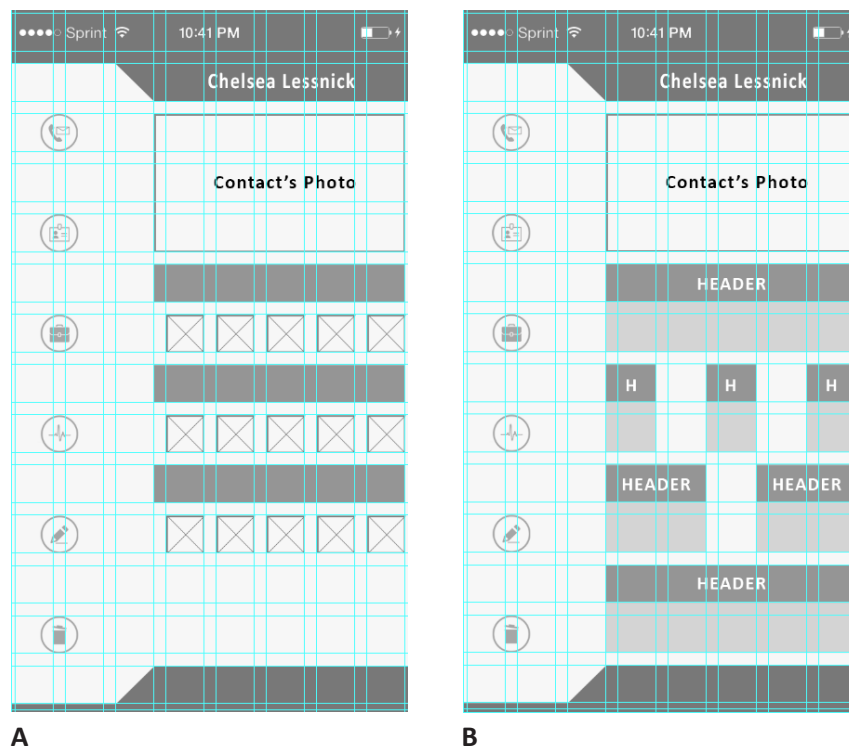
0 Comments | 0 Kudos [Edit](#) [Remove](#) [Report Post](#)

The owner of this blog has disabled comments for this post.

16. "Eeveelutions." Aniroleplay. Last modified September 9, 2015. [www.aniroleplay.com/Eeveelutions](http://www.aniroleplay.com/Eeveelutions).

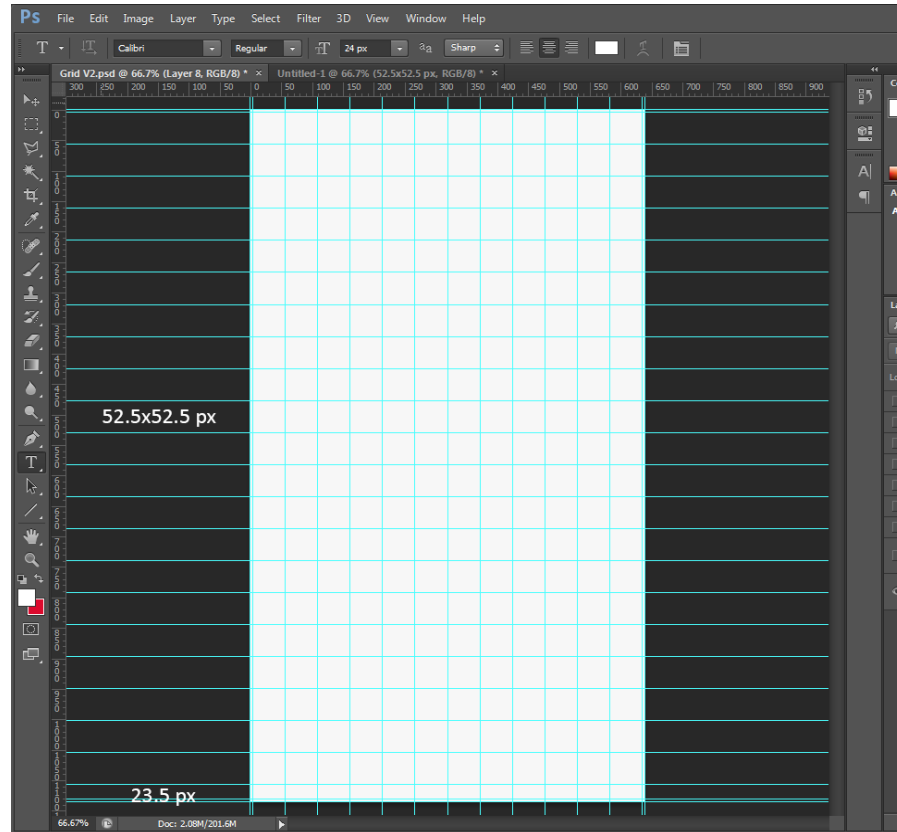
FIGURE 40 demonstrates how the design choice of FIGURE 39 fits into the grid structure currently established for the Connex application.

**FIGURE 40**



Unfortunately, the gaps between sections combined with the narrow content containers as shown in FIGURE 40B obstructed the layout and limited the design of the content. A modification had to be made to the grid structure either in the form of redistributing the rows and columns, or creating a secondary grid structure for the content in the right column.

FIGURE 41



In FIGURE 41, the rows and columns of the baseline grid structure were redistributed to consist of major rows and columns set to 52.5x52.5 pixels with margins set to 5 pixels.

While the arrangement was distributed evenly across the iPhone 5s screen, there were 23.5 unaccounted pixels located at the bottom of the screen. The remaining screen real estate was used for the bottom bar graphic.

Based upon the fields listed on page 66 and 67, FIGURE 42 shows the different variations in which the layout design in FIGURE 39 can adapt to.

FIGURE 42

CONTACT PHOTO

DATA ENTRY  
"Enter Information Here"

BIRTH RECORD

APPEARANCE

Name: Chelsea Lessnick  
Nickname: None  
Gender: Female  
DOB: 1/1/1990

Hair Color: Brown  
Eye Color: Hazel  
Height: 5'5"  
Weight: 120lbs

PERSONALITY  
Sarcastic, Caring, Kind, Headstrong

HABITAT

BIRTHMARKS

From: Rochester, NY  
Residence: 64 Victory Rd  
Rochester, NY 14623

None

SCARS

TATTOOS

None

None

PIERCINGS

ELEMENTAL TYPE

Ears

Water

SEXUALITY

ASTROLOGY SIGN

Orientation: Straight  
Status: Single

Taurus

LIKES

DISLIKES

Puppies  
Tigers  
Blue  
Sparkles  
Video Games  
Chocolate  
Strawberries

Spiders  
Bugs  
Ladders  
Dark Chocolate

CONTACT PHOTO

DATA ENTRY  
"Enter Information Here"

BIRTH RECORD

Birth Name: Chelsea Lessnick  
Nickname: N/A  
Date of Birth: January 1, 1990  
Gender: Female  
Age: 25

PHYSICAL APPEARANCE

Height: 5'5"  
Weight: 120 lbs  
Hair Color: Brown  
Eye Color: Hazel  
Birthmarks: None  
Scars: None  
Tattoos: None  
Piercings: Ears

HABITAT

Place of Birth: Rochester, NY  
Habitat: 64 Victory Rd,  
Rochester, NY 14623

RELATIONSHIP STATUS

Orientation: Straight  
Marital Status: Single

TRAITS

Likes: Puppies, Tigers, Sparkles,  
Video Games, Chocolate,  
Strawberries  
Dislikes: Spikders, Bugs, Ladders

PERSONALITY

"Enter Information Here."

OTHER

Astrology Sign: Taurus  
Elemental Type: Water

A

B

FIGURE 42

CONTACT PHOTO

DATA ENTRY

"Enter Information Here"

BIRTH NAME	NICKNAME
Chelsea Lessnick	N/A

GENDER	D.O.B	AGE
Female	January 1, 1990	25

PLACE OF BIRTH	HABITAT
Rochester, NY	64 Victory Rd Rochester, NY 14623

HAIR	EYES	HEIGHT	WEIGHT
Brown	Hazel	5'5"	120 lbs

BIRTHMARKS	SCARS
None	None

TATTOOS	PIERCINGS
None	Ears

ORIENTATION	MARITAL STATUS
Straight	Single

PERSONALITY

"Enter Information Here"

ELEMENTAL TYPE	ASTROLOGY SIGN
Water	Taurus

LIKES	DISLIKES
Puppies Tigers Blue Sparkles Video Games Strawberries Chocolate	Spiders Bugs Ladders Dark Chocolate

C

In FIGURE 42A, certain fields were text heavy while others contained little content. This created an imbalance in the weight of the layout design which made it heavy on the left side of the layout.

In FIGURE 42B, the page appears unified due to each content field containing the same alignment. However, this design choice violates the rules of the grid structure due to its uneven alignment.

In FIGURE 42C, the layout design was even as each field contained one word per line while sharing the same center alignment between the field headers and field content. This design choice carried the Pokédex theme better than the previous two design choices and created the illusion that the page was full of content.

A second survey was conducted which also interviewed over three hundred people to determine which design choice was the most appealing. See the Summary section on page 122 for a detailed questionnaire.

The results favored FIGURE 42C. Multiple participants commented on the poor design of FIGURE 42A, but none chose this option. Over a hundred participants preferred FIGURE 42B saying that this design choice was simplistic and easy to read. However, the layout received criticism based upon the typography alignment. One participant said it “looked too clustered and like a menu.”

For FIGURE 42C, over two hundred participants agreed that each field provided a detailed picture of the person and was far more appealing to the eyes. However, there were mixed reviews about this design choice appearing too cluttered and hard to read.

The layout design choice of FIGURE 42C was the chosen design to carry this project forward because the design stayed true to the theme of the Pokédex. The layout was also the most unified in terms of consistent text alignment. With the layout design determined, the remaining pages were filled in.

FIGURE 43

CONTACT PHOTO

GET IN CONTACT

MISCELLANEOUS

FIND ME ON THE WEB

DATA ENTRY

BIRTH NAME

NICKNAME

GENDER

D.O.B

AGE

PLACE OF BIRTH

HABITAT

HAIR

EYES

HEIGHT

WEIGHT

BIRTHMARKS

SCARS

TATTOOS

PIERCINGS

ORIENTATION

MARITAL STATUS

PERSONALITY

ELEMENTAL TYPE

ASTROLOGY SIGN

LIKES

DISLIKES

A: Contact Profile

B: Personal Profile

**FIGURE 43**

CONTACT PHOTO

EMPLOYER	ADDRESS
Rochester Institute of Technology	One Lomb Memorial Dr Rochester, NY 14623

REGIONAL NUMBER

(585) 475-2411

TITLE	SERVICE TIME
Graduate Student	4 Years

LUNCH ORDER

Steak & Potato	Curly Fries
Marble Slab	Chocolate Galaxy
Cosimo's Pizza	Cheese Pizza w/ Pepperoni
Tom Wahl's	Cheesburger w/ Fries

DRINK ORDER

Starbucks	Water
Dunkin Donuts	Hot Chocolate

CONTACT PHOTO

EMERGENCY CONTACTS

Mother	(702) 555-5555
Father	(702) 222-2222

BLOOD TYPE	ALLERGIES
B-	Penicillin

AILMENTS	DISABILITIES
None	None

MEDICATION	DOSAGE
None	None

SMOKER	DRINKER
No	Infrequently

PREVIOUS SURGERIES

Wisdom Teeth

**C: Work Profile**

**D: Medical Profile**

The content and layout design in FIGURE 43 completed the Pokédex theme. In FIGURE 43A, the icons remained simple and close to the icons already in use on the Apple iPhone.<sup>17</sup>

17. The icons shown in FIGURE 43A are a compilation from different designers, and different downloadable sets.

Jayson Lane. "Icons." Dribbble.com, Last modified August 27, 2013, <https://dribbble.com/shots/1212117-Icons>

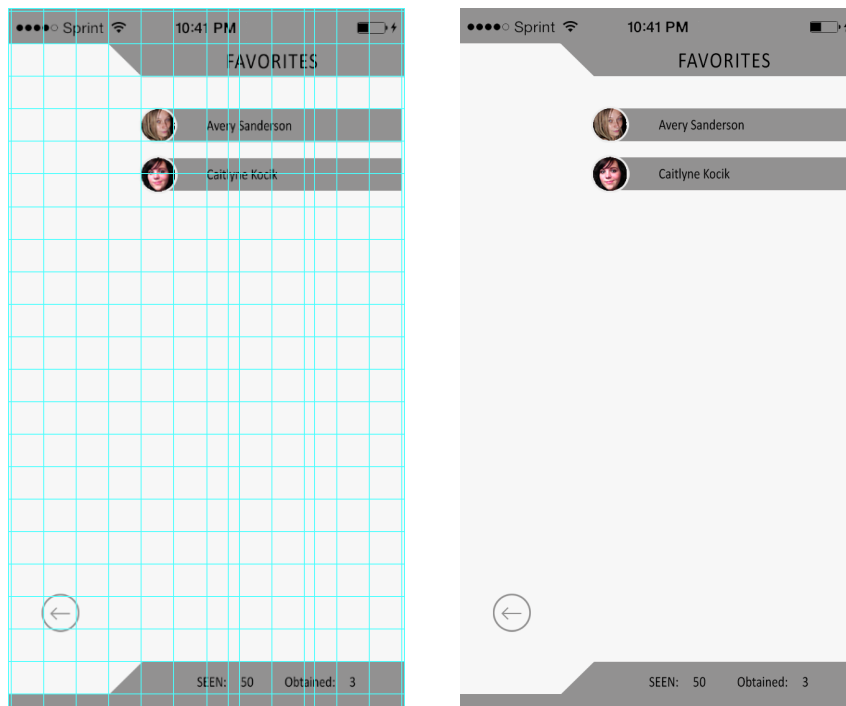
"Tab Bar Icons iOS 7." Pixeden.com, Last modified June 13, 2013, <http://www.pixeden.com/media-icons/tab-bar-icons-ios-7>

Chris B. "Free Download: 90 Social Media Vector Icons." Dreamstale.com, Last modified May 23, 2014, <http://www.dreamstale.com/free-download-72-vector-social-media-icons/>



From the homepage of the application, tapping the icon with three people brings the user to the “Favorites” page.

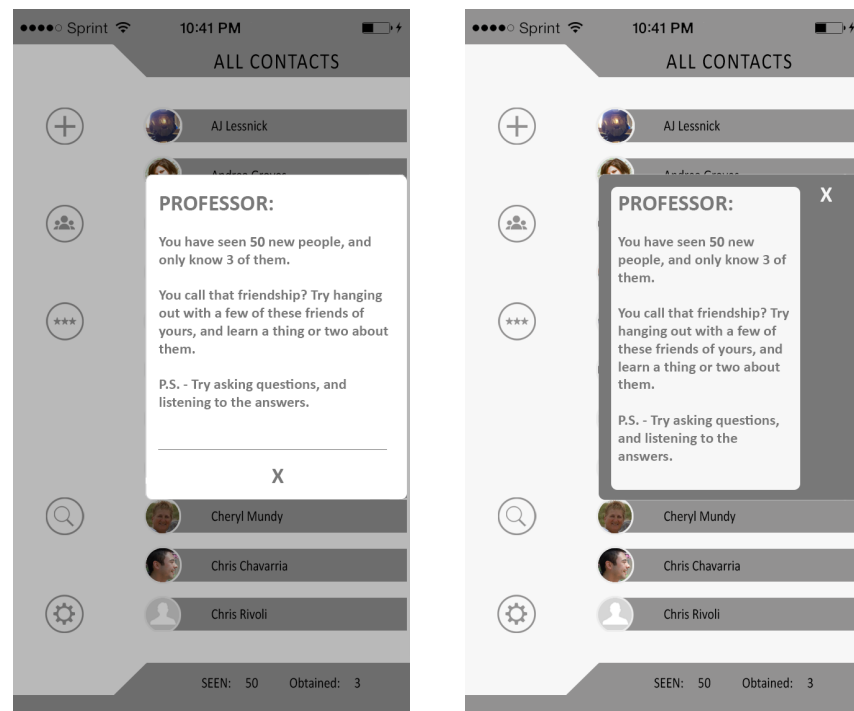
**FIGURE 44**



Next was the “Rating” section of the application. This function calculates the number of completed contact entries against the number of total contact entries in the phone. The number of completed contact entries is represented by the “Obtained” number at the bottom of the screen; whereas the total number of contact entries programmed into the phone is represented by the “Seen” number at the bottom of the screen.

For example, the current number of obtained entries is 3 while the current number of seen contacts is 50:  $3/50 = .06$ . Therefore, this contact list is currently 6% completed.

**FIGURE 45**



**A: Standard Overlay Box**

**B: Outlined Overlay Box**

On an Apple iPhone, when a notification pops up, the background tends to darken and a small white box appears over the content which helps distinguish the layers of content. However, with the dark content in FIGURE 45A, the notification did not provide the layered effect and actually clashed with the overlay box for attention.

In FIGURE 45B, inverting the effect to have the background remain normal while a dark gray border outlines the overlay box created a higher level of contrast for that layered illusion. FIGURE 45B was the chosen design.

Next was the “Search” section where users can search for specific people without having to go through 50, 100, or even 347 names to locate a specific individual.

**FIGURE 46**

Field	Left Screenshot Value	Right Screenshot Value
First Name	---	C
Last Name	---	L
Gender	---	Female
Age	---	18-25
Element Type	---	Water
Astrology Sign	---	Taurus
Habitat	---	New York

Tapping each search field reveals a drop down menu in which the user can select the appropriate search term. Not all fields are required to conduct a search, but the more information provided, the narrower the search results will be.

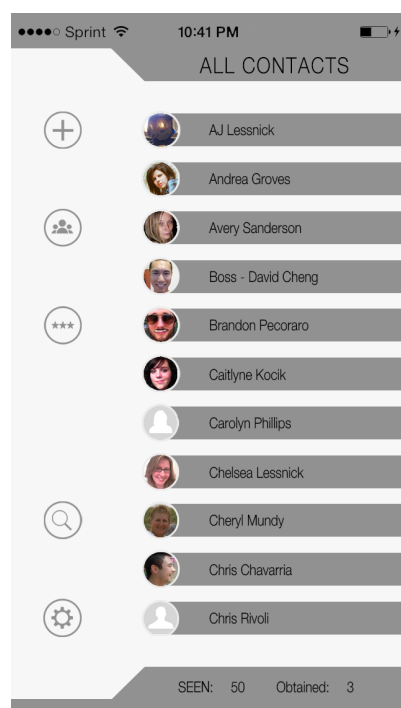
The last page to complete was the “Settings” page. This section allows the user to customize the Connex application to individual preferences. This page will be designed at a later point. Once the remaining components of the Connex application are completed, a better understanding of which features to make customizable will become clear.

# The Process | Typography

The font used for an Apple iPhone was HelveticaNeue Light. HelveticaNeue Light is a sans serif font which is elegant, easy on the eyes, and easy to read. However, peers argued that the HelveticaNeue Light font appeared too modern and does not support the Pokédex theme.

**FIGURE 47**

**The homepage  
with the default  
iPhone font:  
Helvetica Neue.**



Peers suggested building the Connex application using a pixelated font due to the pixelated interface of the Generation I games of the Pokémon franchise. When working with pixelated fonts, there was a potential for it to be illegible when scaled to a small font size, or looking crisp when scaled up to 20px.

Different types of pixelated fonts were researched on [www.dafont.com](http://www.dafont.com), and eight out of nine hundred fonts were tested: “Visitor” by Ænigma, “Silkscreen” by Aleksandr Kottke, “Joystix” by Typdermic Fonts, “Ace Attorney” by David Fens, “Type Writer” by Mandy Smith, “Tandysoft” by Pixel Sagas, “Babyblue” by Bell, and “Optiate” by Darryl.

Eight fonts were tested with “Joystix” and “Tandysoft” font styles being the only two that showed potential. See Appendix C on page 128 for screenshots testing the other six font styles.

**FIGURE 48**

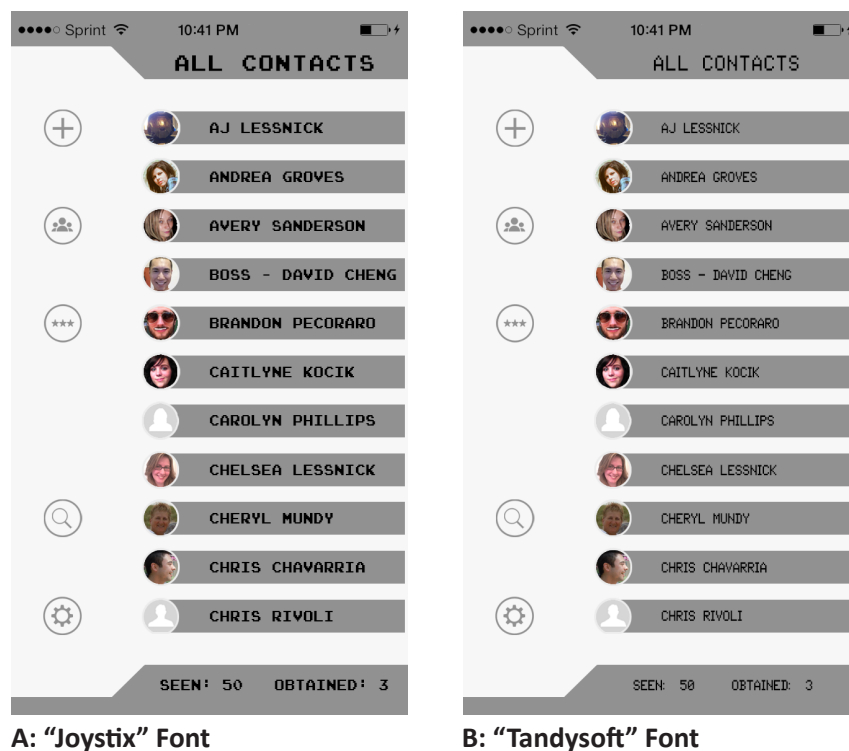


FIGURE 48A showcased the “Joystix” font style. This font contained aspects of a sans serif font and pixelated font which reinforces the Generation I Pokédex theme while still maintaining a sense of modern elegance. One concern was the weight of the font. The thick lines forced the text to the edges of the container and made the text appear bold by default. This effect was undesirable because the font weight limited the ability to create contrast. Since “Joystix” does not offer weight variations, this font would limit the design of the Connex application.

FIGURE 48B showcased the “Tandysoft” font style. This font contained a comfortable letter spacing for each word while providing ample space between words for easy reading. Similar to “Joystix,” this font contained aspects of a modern sans serif font while maintaining the pixelated Generation I Pokédex theme. This font style was chosen for the Connex application due to the available weight variations and crisp edges which keeps the letters and numbers from appearing misplaced.

With the font determined, the remaining pages were updated to reflect the new font. Three font sizes were used for the Connex application: 34 pixels for the “Breadcrumb” headers, 24 pixels for the contact names and field names, and 20 pixels for the remaining content.

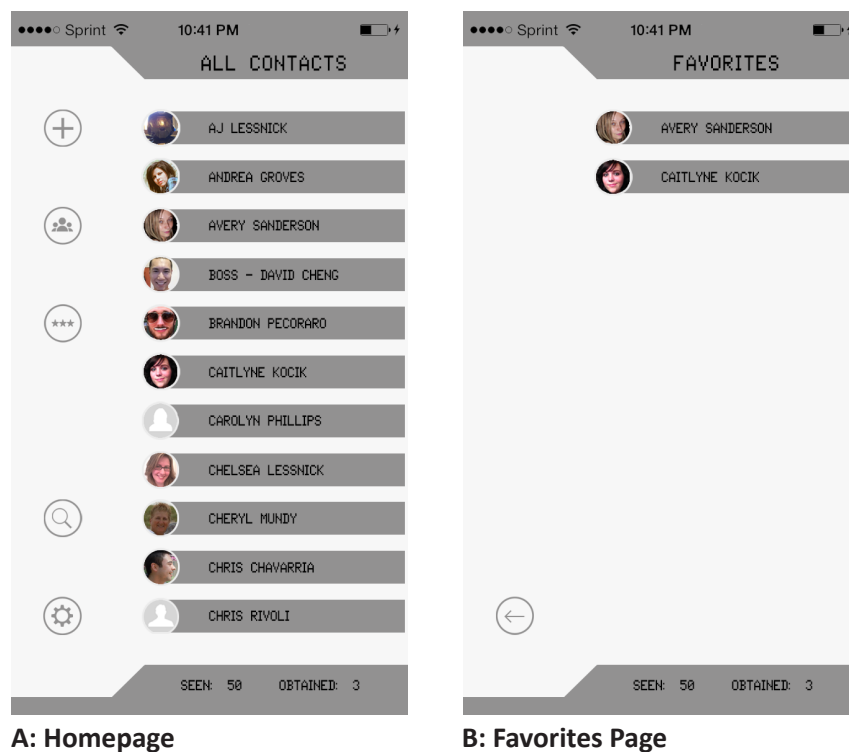
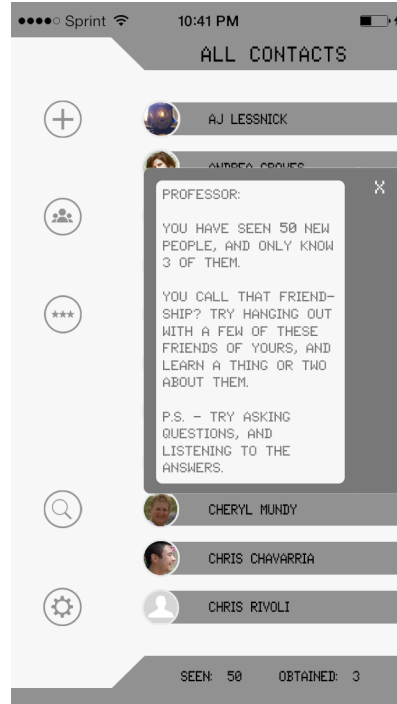
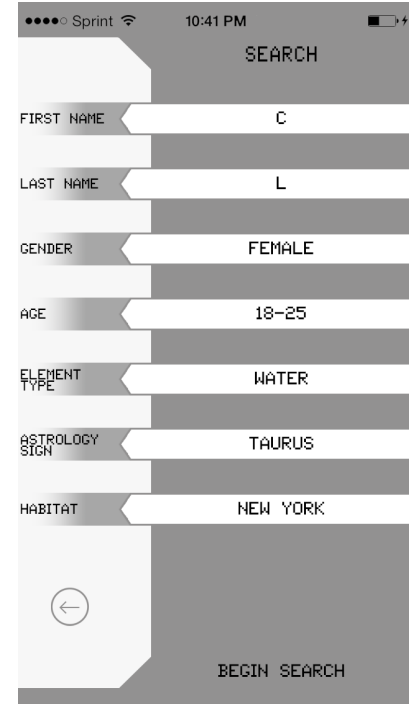
**FIGURE 49**

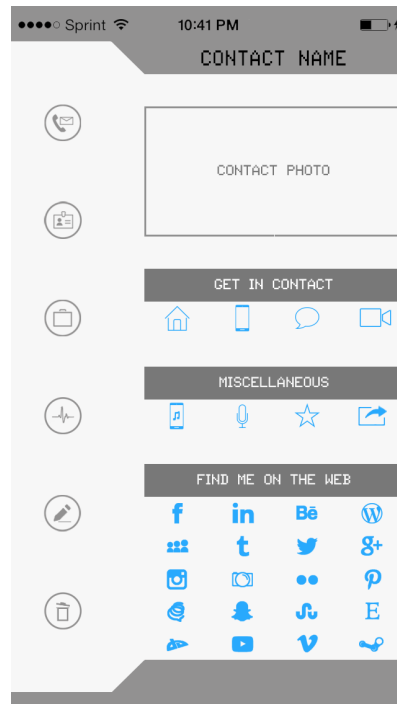
FIGURE 49



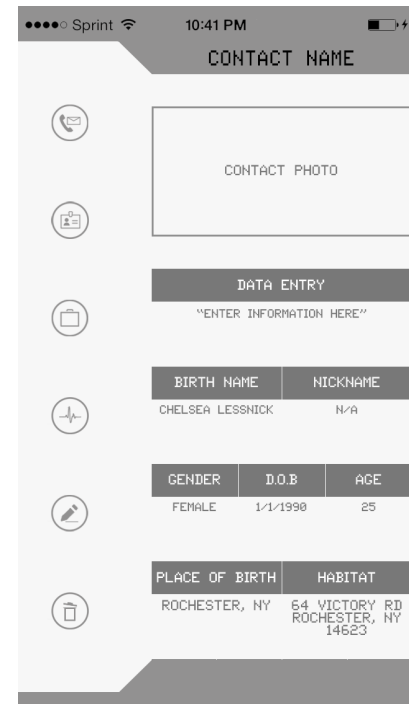
C: Rating Page



D: Search Page



E: Contact Profile



F: Personal Profile

FIGURE 49

Sprint10:41 PMCONTACT NAME

CONTACT PHOTO

EMPLOYER

ADDRESS

RIT1 LOMB MEMORIAL DR  
ROCHESTER, NY  
14623

REGIONAL NUMBER

(585) 475-2411

TITLE

SERVICE TIME

GRADUATE STUDENT4 YEARS

LUNCH ORDER

MARBLE SLAB CHOCOLATE GALAXY  
TOM WAHL'S CHEESBURGER W/ FRIES

G: Work Profile

Sprint10:41 PMCONTACT NAME

CONTACT PHOTO

EMERGENCY CONTACTS

MOTHER (782) 555-5555  
FATHER (782) 222-2222

BLOOD TYPE

ALLERGIES

B-PENICILLIN

AILMENTS

DISABILITIES

NONE

NONE

MEDICATION

DOSAGE

NONE

NONE

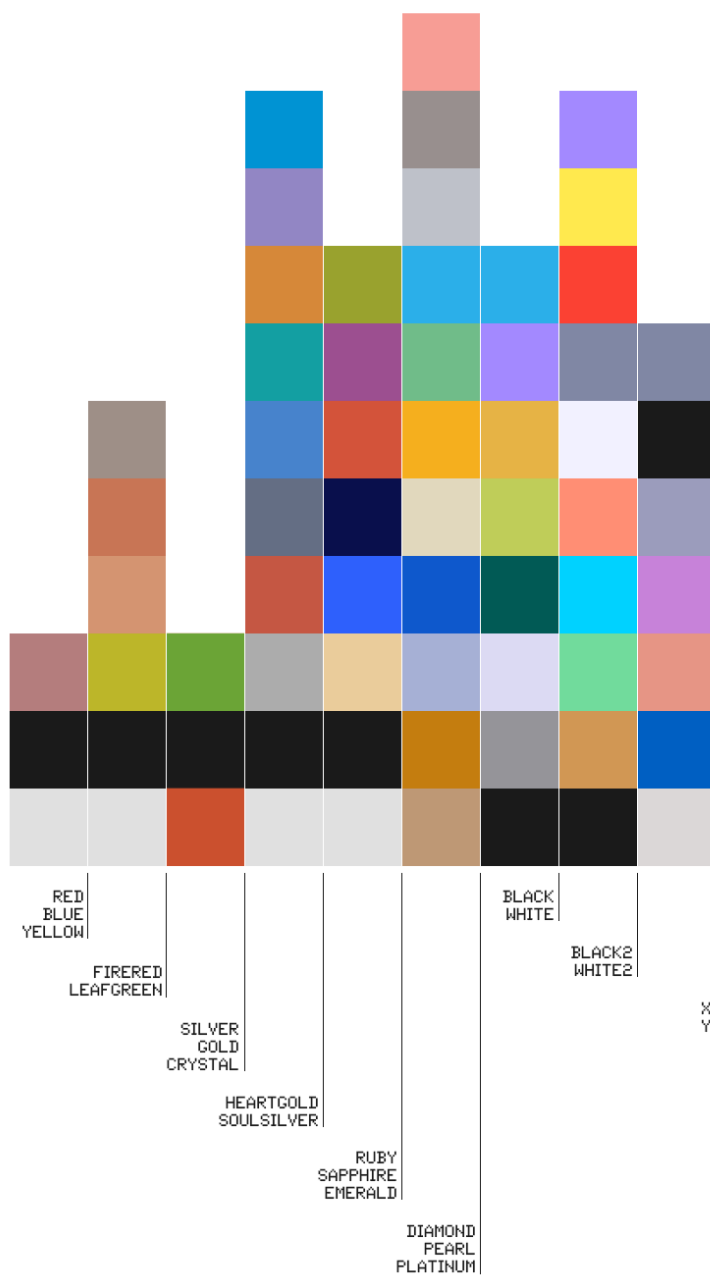
H: Medical Profile



## The Process | Color Scheme

Below is a comparative analysis of the color scheme found in each Pokédex interface.

**FIGURE 50**  
The color schemes for each Pokédex interface.<sup>18</sup>



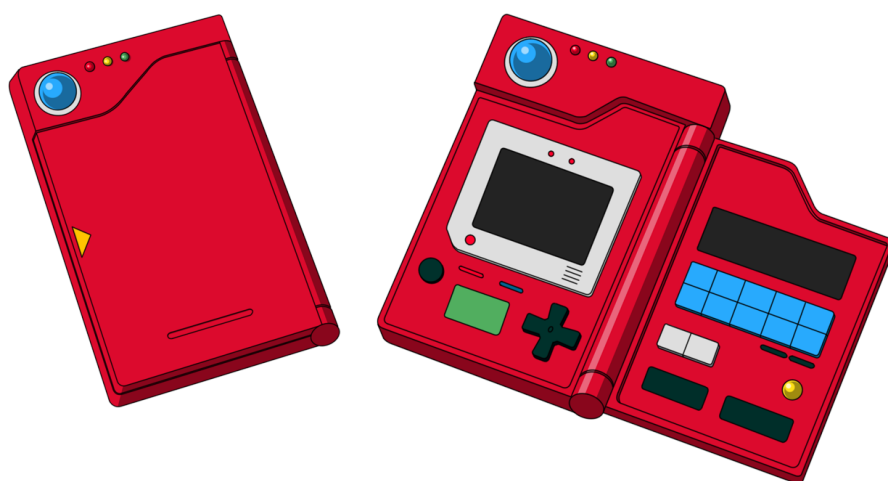
18. Referencing FIGURES 2-9 from pages 15-27.

The most common colors that appeared throughout the variations of the Pokédex interface were white, silver, gray, and black. Other colors such as green, yellow, red, and blue made minor appearances in different shades.

The goal was to create a minimal color scheme which pays tribute to the original Kanto Pokédex found in the anime series when it first aired in 1997.

**FIGURE 51**

**The Pokédex device found in the Kanto Region.<sup>19</sup>**



The Pokédex device itself supports the common colors listed above. Red, white, and black are the focus colors with blue, yellow, and green as secondary colors used for minor buttons and/or accents.

---

19. Although not shown in the Generation I Pokémon games, this version of the Pokédex is frequently used in the anime series while Ash travels around the Kanto Region; however, by episode 117 when Ash travels to the Johto Region, he acquires the Johto version of the Pokédex to replace the Kanto version.

AuraSoul93. "Which Style Pokédex Is Your Favorite?" Bulbagarden.com, Last modified March 4, 2011, <http://bmgf.bulbagarden.net/f313/style-Pokédex-your-favorite-100565/>

**FIGURE 52**

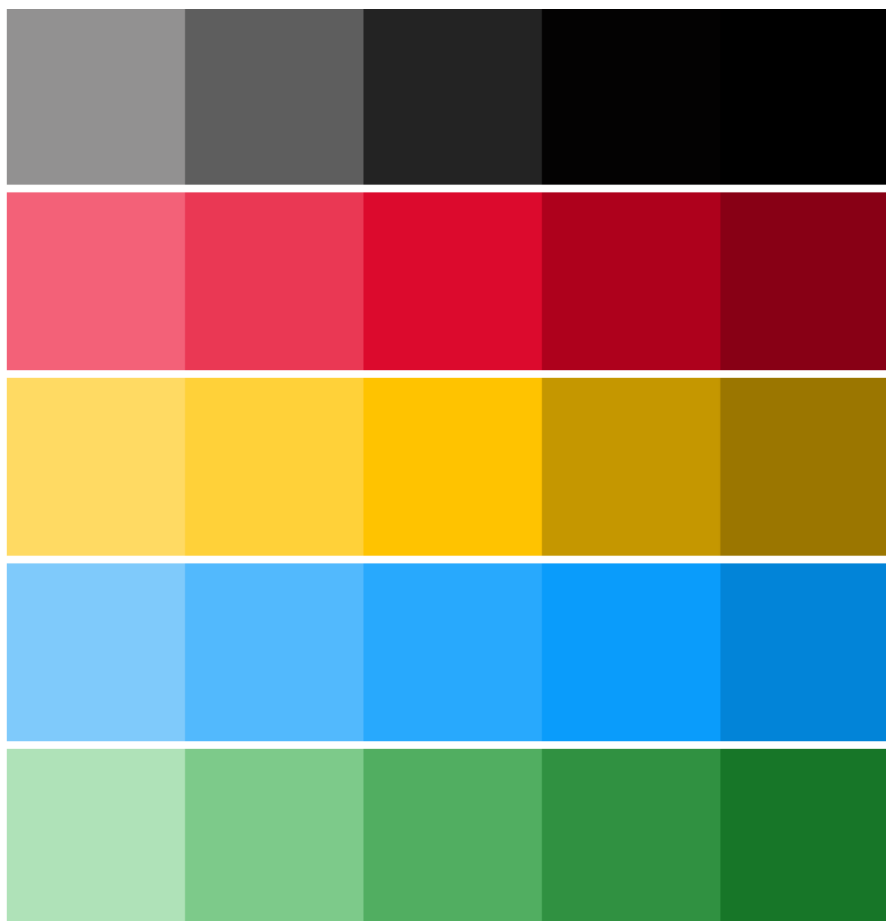
The color scheme used for the Kanto Pokédex in FIGURE 36.



Research was done to determine which type of color scheme was used for this set of colors. Excluding black, this scheme fits the tetrad parameters. The website Palletton was used to experiment with the default tetrad color scheme.

**FIGURE 53**

Exploration of the color pallet shown in FIGURE 60 by adjusting the tone.



The center colors in FIGURE 53 match those from the color pallet in FIGURE 52 with two shades lighter on the left, and two shades darker on the right.

The interface of each Pokédex utilized color shades, which made more colors available to use without introducing new colors entirely. Starting with the homepage of the Connex application, the angled bars at the top and bottom of the screen were the most prominent element of the Connex application. Since the primary focus color of the Kanto Pokédex was red, red was chosen to attract the user's attention.

FIGURE 53



FIGURE 54

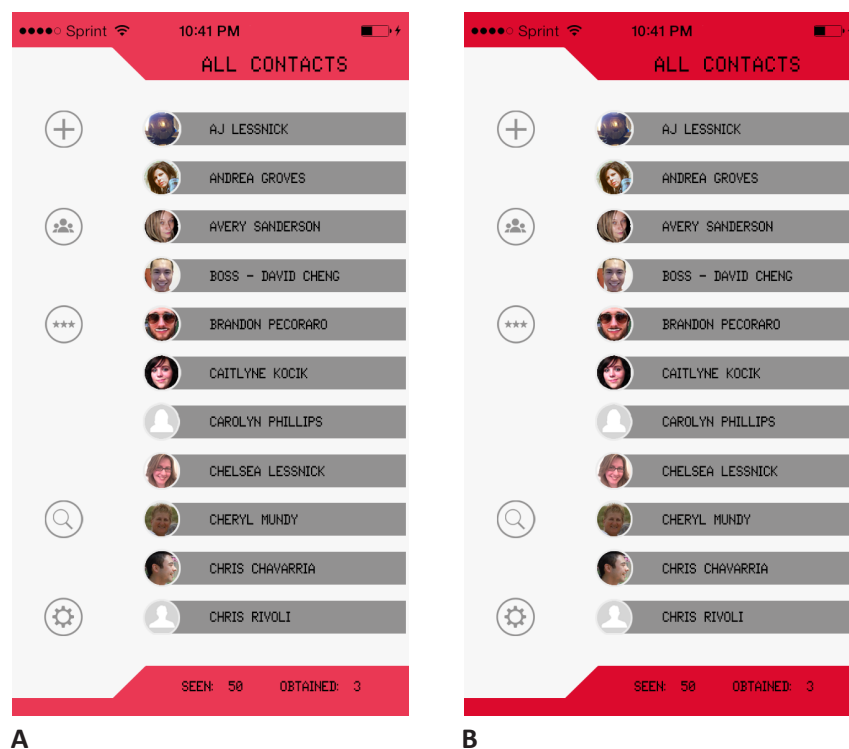
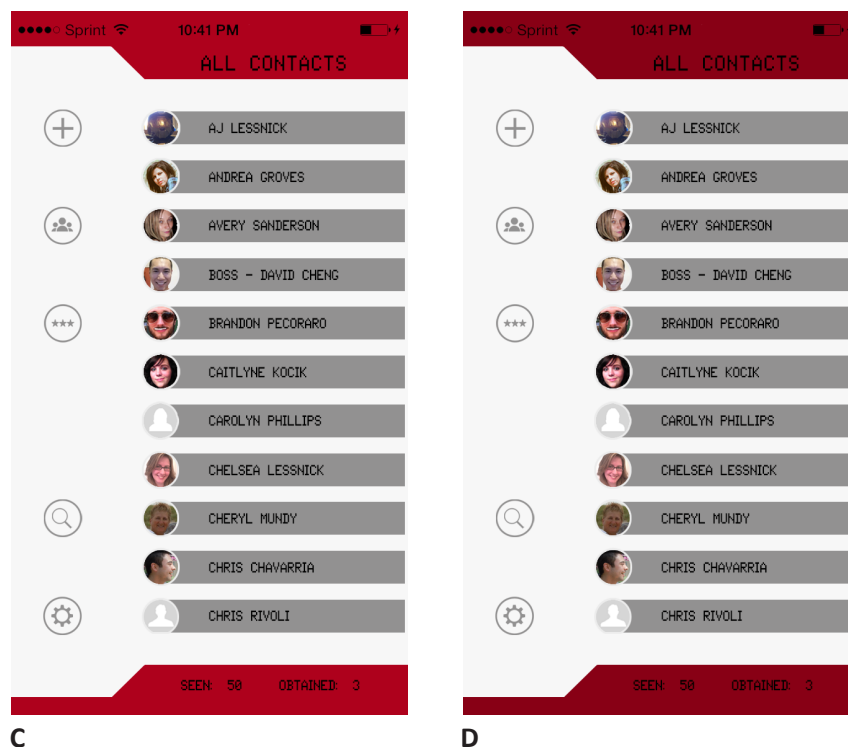


FIGURE 54



In FIGURE 54A, the second shade of red shown in FIGURE 53 was tested. This shade of red was too light, and appeared pink rather than red.

In FIGURE 54B, the third shade of red shown in FIGURE 53 was tested. This was the true shade of red shown in FIGURE 52, and it appeared rich and vibrant which effectively captures the user's attention.

In FIGURE 54C, the fourth shade of red shown in FIGURE 53 was tested. This shade of red was darker than FIGURE 54B, and lowered the saturation level. It is not too bright or demanding on the eyes of the user.

In FIGURE 54D, the fifth shade of red shown in FIGURE 53 was tested. This shade of red was the darkest, and the dark tone overpowered the red color making it hard to see.

On a computer screen, FIGURE 54B and FIGURE 54C were the strongest color choices. However, the Connex application was designed for mobile phone platforms. These two images were ported to an Apple iPhone for further testing.

FIGURE 54C appeared darker on a mobile phone screen causing the text to be lost against it. For this reason, FIGURE 54B was chosen for the Connex application.

The contact list was another primary element to the Connex application. The gray color pallet of FIGURE 53 was chosen to distinguish this element from the angled bars.

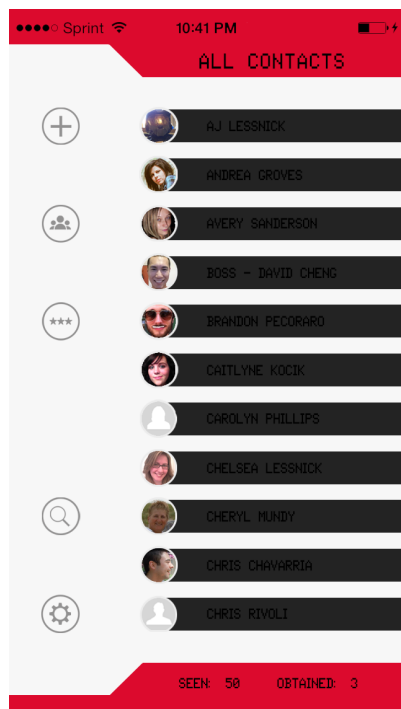
FIGURE 53



FIGURE 55



FIGURE 55



C

In FIGURE 55A, the first shade of gray shown in FIGURE 53 was tested. This shade of gray was light which made the contact list a secondary focus point to the red angled bars, but still attracted attention.

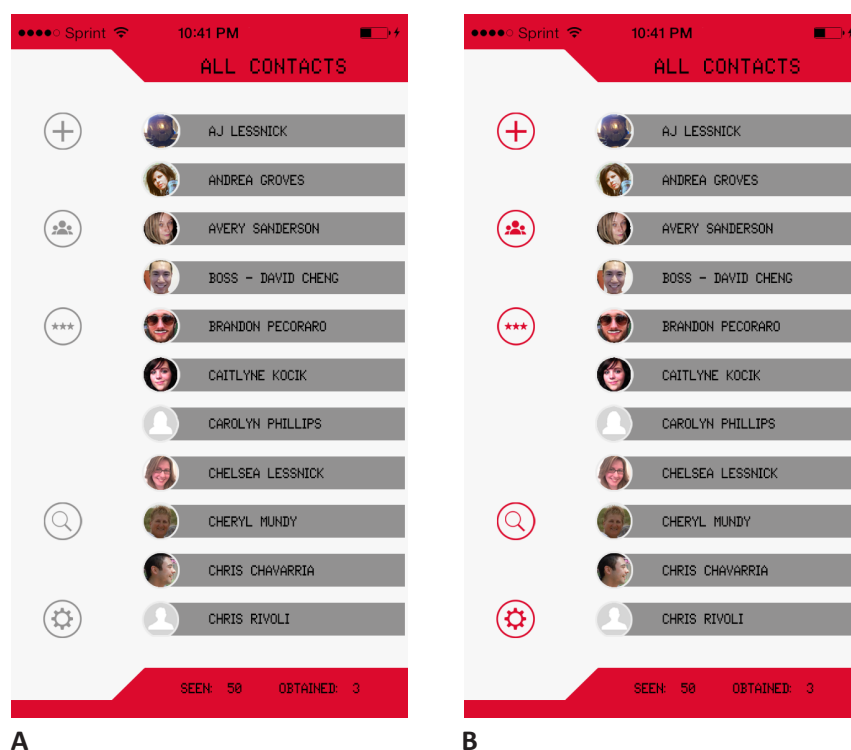
In FIGURE 55B, the second shade of gray shown in FIGURE 53 was tested. This shade of gray was more prominent causing the contact list to clash with the red angled bars for attention.

In FIGURE 55C, the third shade of gray shown in FIGURE 53 was tested. This was the true shade of gray shown in FIGURE 52, and it dominated the other elements on the page, causing the red angled bars to become a secondary focus.

FIGURE 55A was the shade of gray chosen for the contact list of the Connex application due to the effect of maintaining a secondary focus while still drawing attention.

The last element to receive a color treatment on the homepage was the navigation icons. Two main colors were introduced: red and gray. Each contact picture contained a mixture of colors such as peach, green, and blue, and introducing a new color could destroy the design of the layout. Therefore, the best choice was to either reiterate the red from the angled bars or the gray from the contact list.

**FIGURE 56**



In FIGURE 56A, the navigation icons were colored gray to match the contact list. This choice did not unify the layout, and made it appear as if color was only applied to the angled bars at the top and bottom of the screen. The contact list contained a vast amount of gray and to add more to the layout would mute the design.

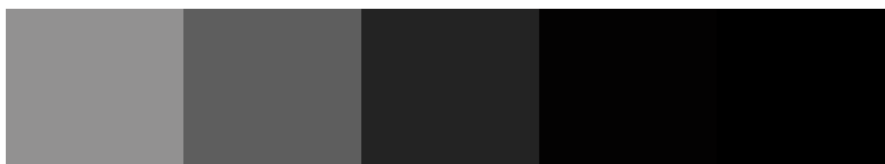
In FIGURE 56B, the navigation icons were colored in red to match the angled banners at the top and bottom of the screen. This choice unified the layout by bringing a small amount of red into the body of the Connex application. The red also complimented the pictures, and helped to break the gray monotone of the contact list. FIGURE 56B was the chosen design.



The next item to receive color was the “Rating” overlay box. This overlay box only appears on the homepage, which is one of the two busiest pages in the Connex application.

To introduce a new color such as blue, green, or yellow could overwhelm the user. However, using red would overwhelm the user as well since it added too much of the color to the layout. Therefore, the grayscale color pallet in FIGURE 53 was chosen for the outer box of the overlay.

FIGURE 53



The outer box of the overlay had to be a darker shade of gray so it would not blend in with the contact list. For this reason the contact list became opaque as to not draw attention to itself.

FIGURE 57



In FIGURE 57A, the second shade of gray shown in FIGURE 53 was tested on the outer box of the overlay content. With the contact list opaque to create a layer of separation between content, using one shade darker on the grayscale color pallet created a balance while not competing with the red angled bars at the top and bottom of the screen.

In FIGURE 57B, the third shade of gray shown in FIGURE 53 was tested on the outer box of the overlay content. This shade of gray provided the same level of contrast and layer of separation that FIGURE 57A provided; however, this gray competed with the red angled bars at the top and bottom of the screen for the user's attention.

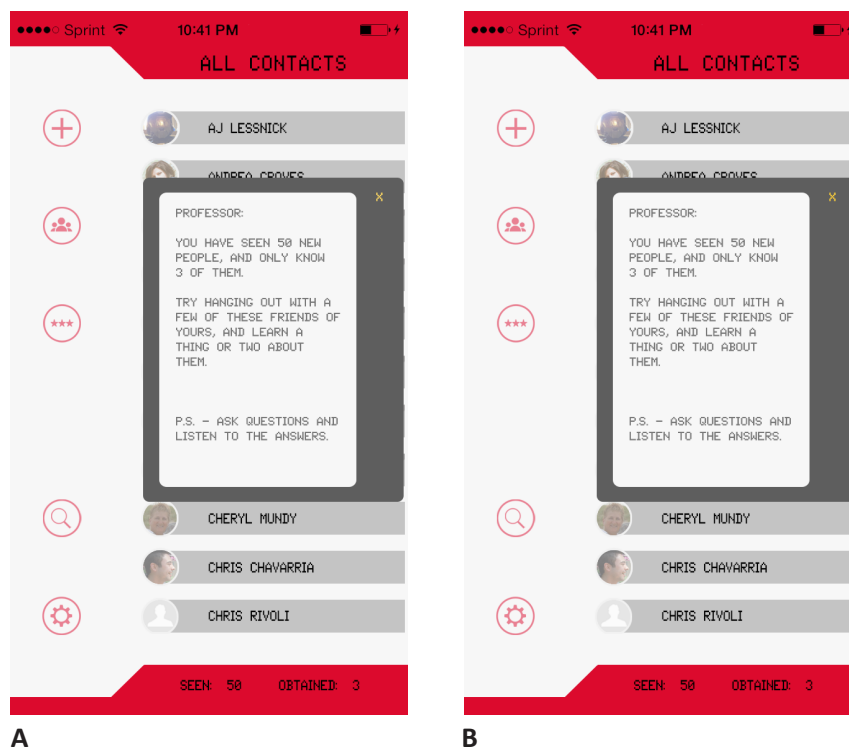
FIGURE 57A was the chosen design for the Connex application. Due to the vast amounts of red and gray within the homepage, the "X" button in the top right corner of the overlay box needed to be a different color. To stay true to the Kanto Pokédex from the cartoon, the accent colors of yellow, blue, and green were used.

The "X" button is used to cancel out of the overlay and get back to the application. Canceling an action, or backing out of something is generally signified by the color red. However, since the color red was used for another purpose, the next best color would be yellow: a symbol of caution.

**FIGURE 53**



FIGURE 58



In FIGURE 58A, the first shade of yellow shown in FIGURE 53 was tested. This shade of yellow appeared too light, and did not stand out as a symbol of caution.

In FIGURE 58B, the second shade of yellow shown in FIGURE 53 was tested. This shade of yellow contained higher levels of saturation which projected the yellow tone better than FIGURE 58A. Therefore, FIGURE 58B was chosen for the “Rating” page of the Connex application.

The remaining pages to receive color were the profile pages of each contact. For the “Contact” page in FIGURE 59, the field name headers were recolored to match the contact list containers. This reintroduced the first shade of gray found in FIGURE 53 throughout the Connex application to create a sense of consistency and unity.

The logical design choice for the contact and social media icons was the blue color pallet since the default color for hyperlinks was blue.

FIGURE 53

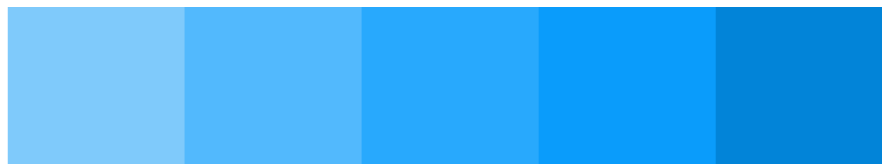
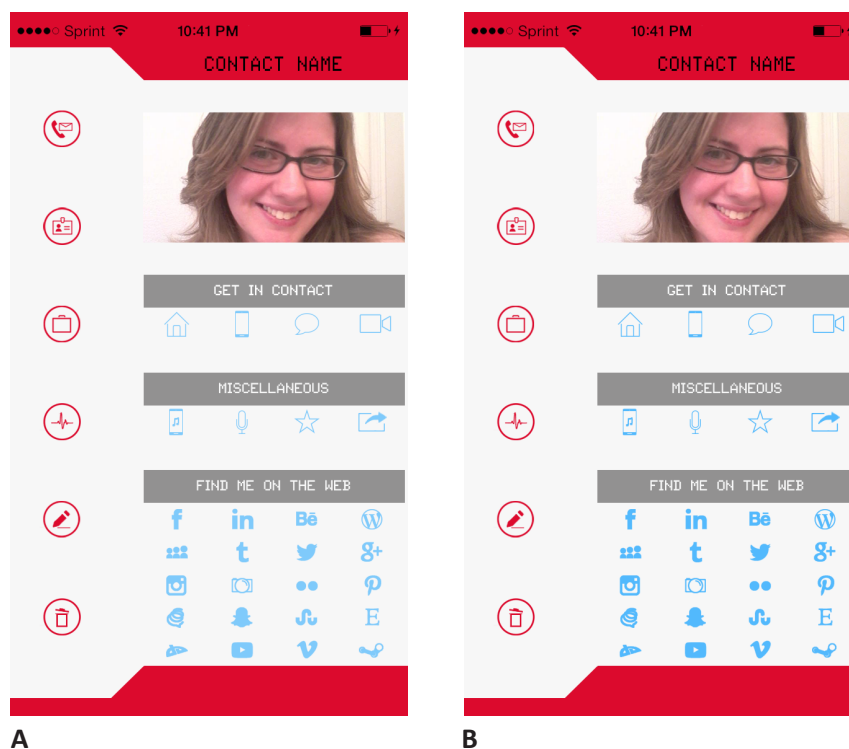


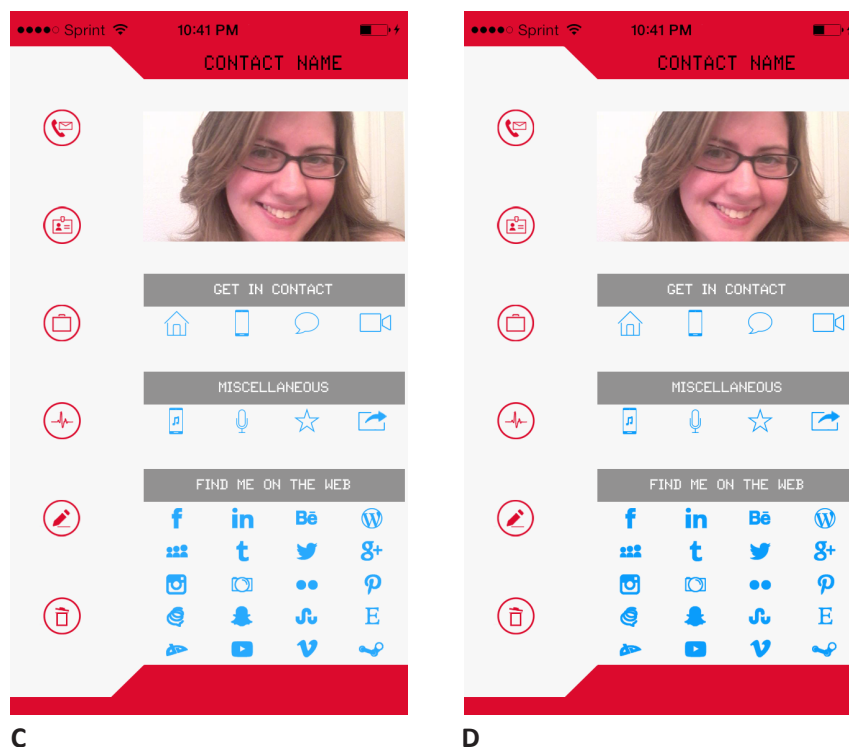
FIGURE 59



In FIGURE 59A, the first shade of blue used in FIGURE 53 was tested. This shade of blue was too light and made the icons disappear into the background. Icons located in the “Get In Contact” field contained thin lines making them hard to see.

In FIGURE 59B, the second shade of blue used in FIGURE 53 was tested. This shade of blue distinguished the “Find Me On The Web” icons from the background, but the “Get In Contact” icons were still lost due to the thin lines.

FIGURE 59



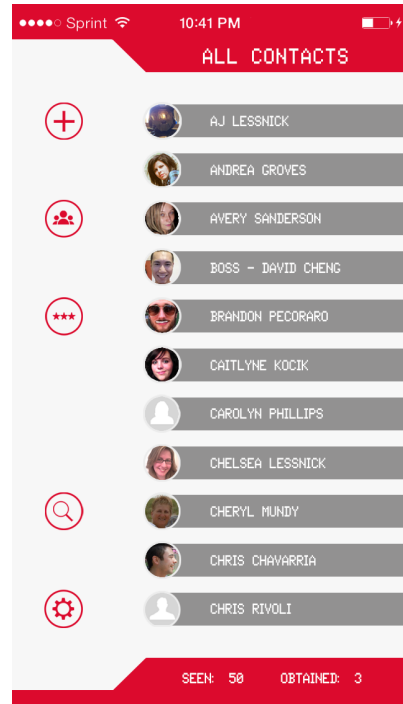
In FIGURE 59C, the third shade of blue used in FIGURE 53 was tested. This was the true shade of blue shown in FIGURE 52, and it created a crisp form of contrast from the background. However, the saturation started competing with the red navigation icons and angled bars.

In FIGURE 59D, the fourth shade of blue used in FIGURE 53 was tested. Although it made the “Get In Contact” and “Miscellaneous” icons more distinct, the saturation level was too high.

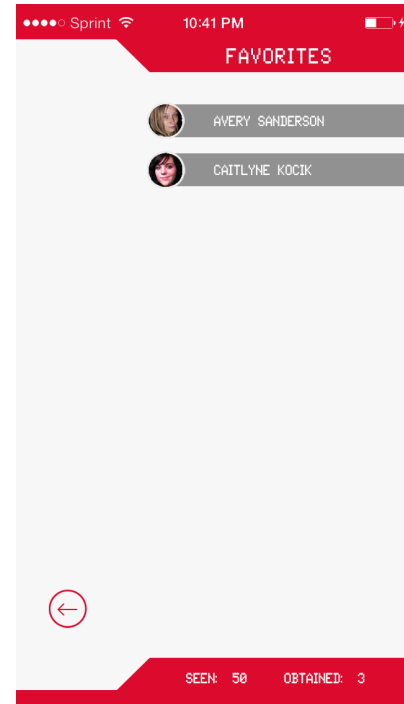
FIGURE 59B was the shade of blue chosen for the contact icons. Although the “Get In Contact” and “Miscellaneous” icons were slightly lost against the background, a 1 pixel stroke around each icon helped bring the icons to the front of the design. This was the favorable solution rather than filling in each icon because it retained the pixelated Pokédex theme which matched the text.

As for the text within the Connex application, black text against a red background found in the angled bars was hard to read. This prompted the breadcrumbs, contact names, seen and obtained, and the field headers within the profile pages to be changed to white. The search fields were changed to black; and the remaining content found within the profile pages, and the “Rating” page were changed to gray.

FIGURE 60



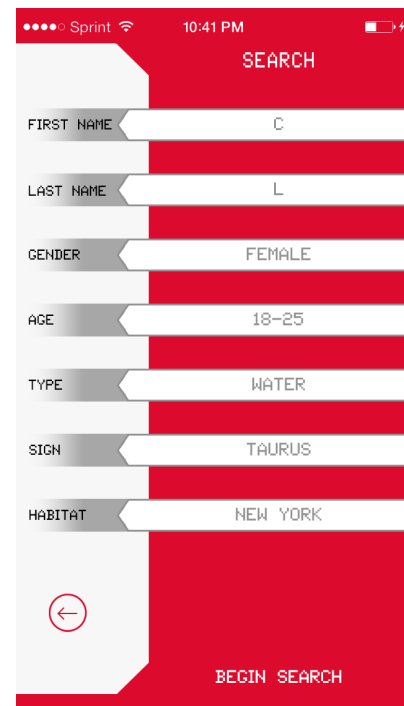
A: Homepage



B: Favorites Page

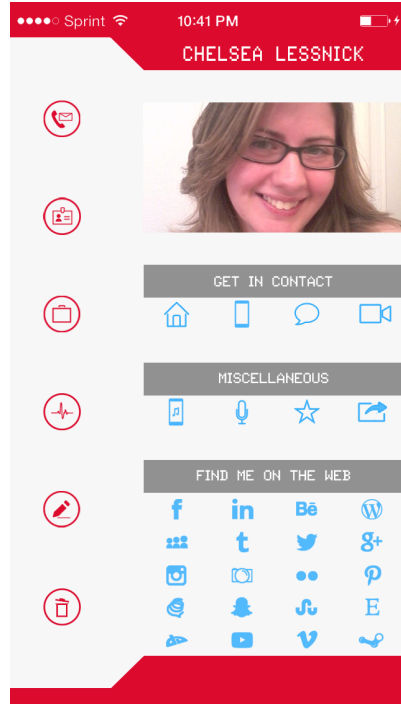


C: Rating Page

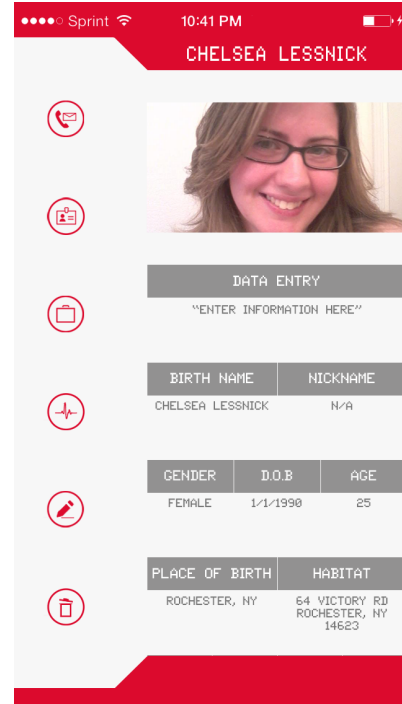


D: Search Page

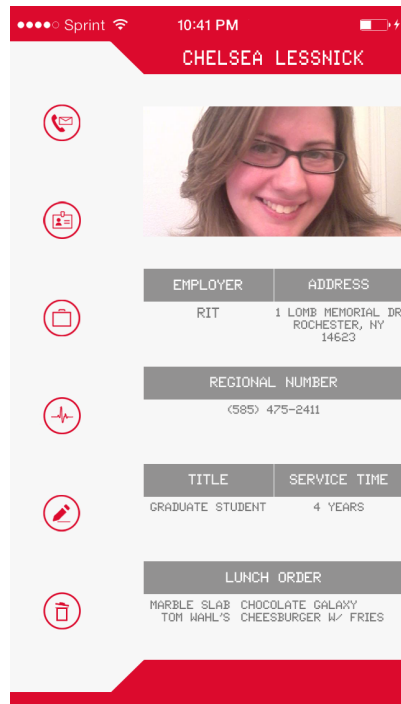
FIGURE 60



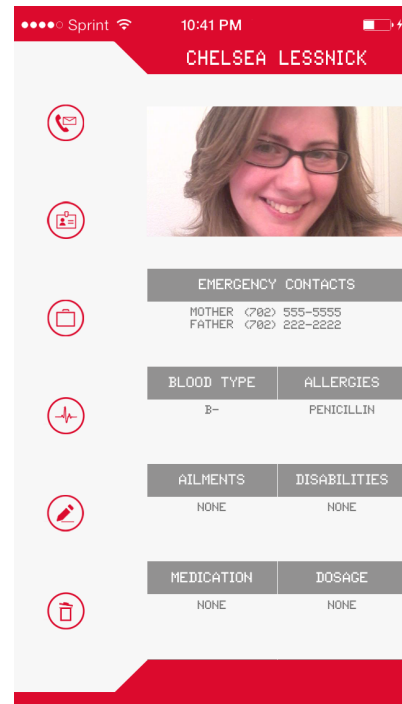
E: Contact Profile Page



F: Personal Profile Page



G: Work Profile Page



H: Medical Profile Page

## The Process | Element Type

In the Pokémon universe, there are eighteen different elemental types.

FIGURE 61

A chart showing the 18 elements found within the Pokémon world.<sup>20</sup>



The elemental types are a key component to the franchise, and there are multiple trainers who choose to specialize in a single elemental type. The most noticeable trainers to specialize in Pokémon of a single element are Gym Leaders.

Instead of assigning elements to each contact at random, a list was created matching the different elemental types to the types of relations found within reality to create a sense of meaning and purpose for each contact.

20. "Type." Bulbapedia.garden.com, Last modified October 27, 2015, <http://bulbapedia.bulbagarden.net/wiki/Type>



**List of elemental type matches:**

Ground	=	Family
Rock	=	Friends
Steel	=	Besties
Grass	=	Logical/Rational/Sensible
Fire	=	Significants
Water	=	Acquaintance
Ice	=	Unresponsive
Bug	=	Annoying
Poison	=	Enemy
Psychic	=	Psycho
Dark	=	Frienemies
Normal	=	Normal/Sane
Flying	=	Flaky/Unreliable
Dragon	=	Co-workers
Fairy	=	Clingy/Needy
Electric	=	Party Group
Fighting	=	Rivals
Ghost	=	Misc.

The Earth elements were chosen for family members and close friends because Earth is a solid, unmoving substance which cannot be swayed.

Water elements were chosen for acquaintances because water is constantly moving and changing. Acquaintances are similar to the water element in the sense that they move in and out of ones life so quickly.

Feedback was obtained from peers and mixed reviews were received mostly questioning the interpretation of each elemental type. The list was straightforward, but not everyone agreed. To peers and friends, each elemental type was interpreted differently. With that feedback obtained, research was conducted to find a better way to represent the elements which would yield universal results.

A critical analysis of the Pokémon universe revealed a crucial component that was overlooked. In every generation of Pokémon games, the player was presented with three starting Pokémon to choose from: a Grass, Fire, or Water type.

Grass = Family  
 Fire = Friends  
 Water = Acquaintances

Ground = ???  
 Rock = ???  
 Steel = ???  
 Ice = ???  
 Bug = ???  
 Poison = ???  
 Psychic = ???  
 Dark = ???  
 Normal = ???  
 Flying = ???  
 Dragon = ???  
 Fairy = ???  
 Electric = ???  
 Fighting = ???  
 Ghost = ???

Pokémon can be assigned one or two elements. The structure shown above mirrors this concept of dual elements. The first element would classify a contact as a family member, a friend, or an acquaintance. The remaining categories will act as subcategories within the Grass, Fire, and Water categories.

For example, Grass represents a member of the family. Is the family member a parent, sibling, spouse, child, grandchild, grandparent, cousin, aunt or uncle?

Another example, Water represents acquaintances. Is the acquaintance a co-worker, friend of the family, friend of a friend, client, or classmate?

Grass = Family  
 Fire = Friends  
 Water = Acquaintances

Ground = Aunt/Uncle  
 Rock = ???  
 Steel = Parents  
 Normal = ???

Electric = Online Friends  
 Fighting = Best Friends  
 Dark = ???  
 Bug = ???

Poison	=	Client
Ice	=	Friend of a Friend
Psychic	=	Friend of the Family
Flying	=	Classmate
Dragon	=	???
Fairy	=	???
Ghost	=	Co-Worker

Splitting the remaining elements among the categories grass, fire, and water restricted the concept of assigning dual elements to a contact. This restriction meant losing the opportunity to use elements such as rock, electric, or dragon in the other two categories. This would require a reassignment for each element. For example, a Fire/Poison type person would be the toxic friend, but a Water/Poison type person would be a co-worker acquaintance.

Assigning multiple meanings to one element was proving to be a hassle, and its difficulty would only confuse the users. There were two options: automatically assign elements to a contact based upon how the user classifies them, such as family, friends, or co-workers; or let the user assign the elements to their contacts based upon their interpretation of each element?

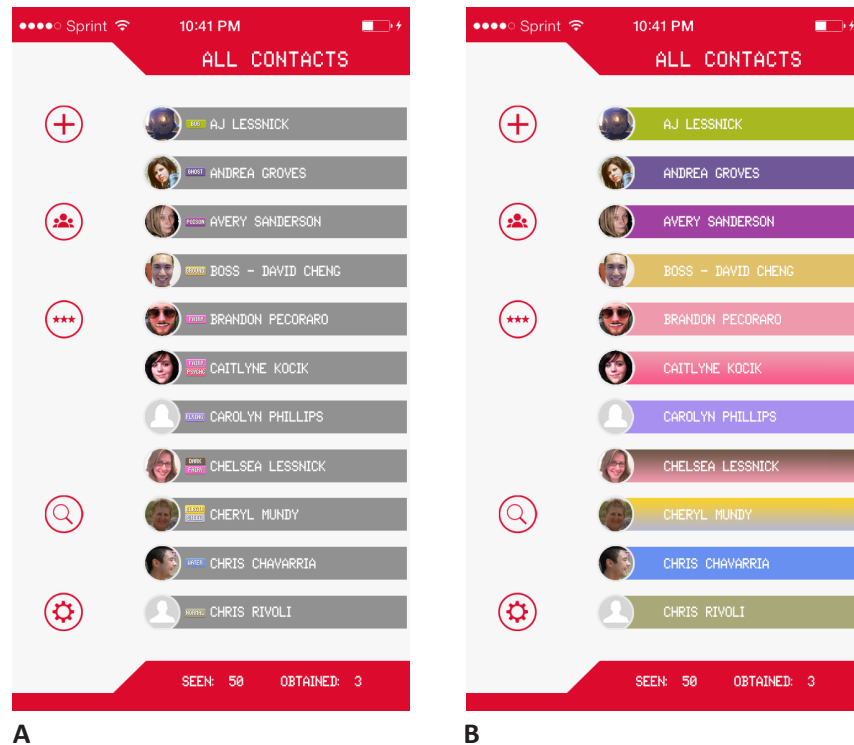
Over three hundred people were surveyed to determine how each element is interpreted. See the Summary section on page 123 for a detailed questionnaire.

The results were not shocking, and has demonstrated that color is perceived differently than the element itself. A pre-determined list of elements could be created, but users of different cultures would always disagree with the assigned meaning.

Therefore, it was best to leave the elemental types meaningless. This would allow the user to assign these elements to each contact based upon their interpretation. However, this noteworthy feature has potential both ways and will be a customizable feature within the settings menu.

The next task was to determine how to represent, or display, the elemental types. Research has shown that existing Pokédex applications found on pages 29-38 either represent the elements as icons next to each Pokémon's name, or as a colored banner across the Pokémon's data entry page.

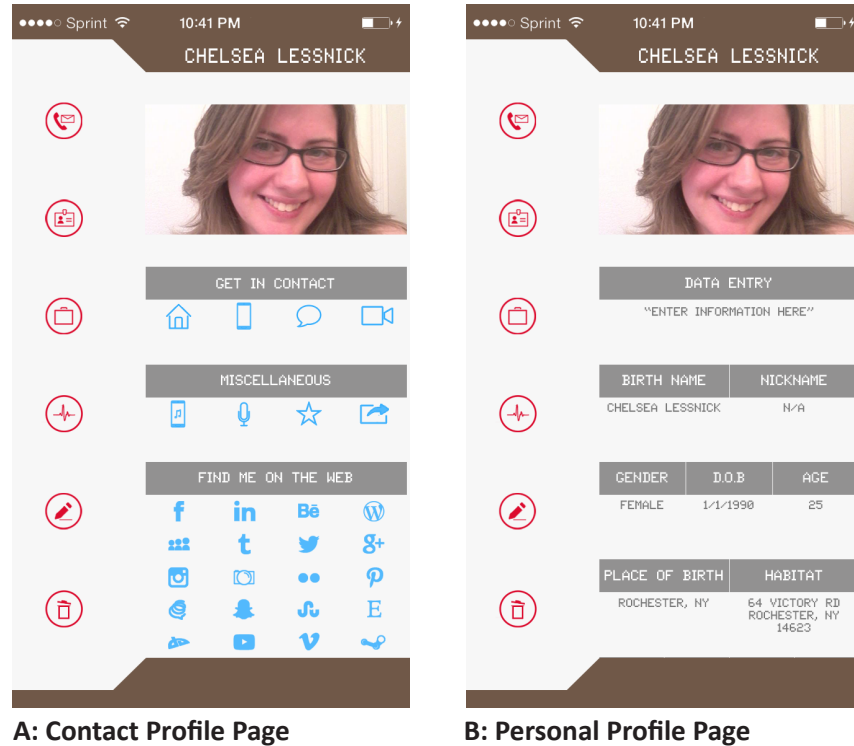
FIGURE 62



In FIGURE 62A, the elemental type badges were placed next to the name of each contact. Although small in size, the additional content caused the homepage to become busy and unclear. Each elemental type badge brought a touch of color and when combined with the pictures of each contact, it was an overload.

In FIGURE 62B, the elemental type badges were dropped in favor of colorizing each container to reflect the elemental type of the contact. However, this introduced too many colors at one time and it clashed with the red angled bars for the user's attention. Also, the colored backgrounds made the white text hard to read.

Following the style of the Oak application and PokeDream Dex application found in FIGURE 11 and FIGURE 12 on pages 33-36, the contact profile page was experimented with to test possible color solutions.

**FIGURE 63**

Assuming only one element has been assigned to the contact, the angled bars at the top and bottom of the screen will change to reflect the chosen element.

In the Oak application and PokeDream Dex application, only one element was displayed for each Pokémon. Regardless if the Pokémon was classified as a dual elemental type. However, further experimentation was conducted to find an effective way to represent the second element.

FIGURE 64

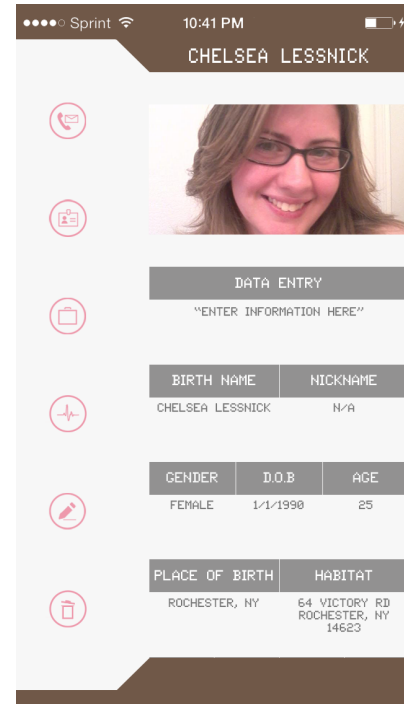
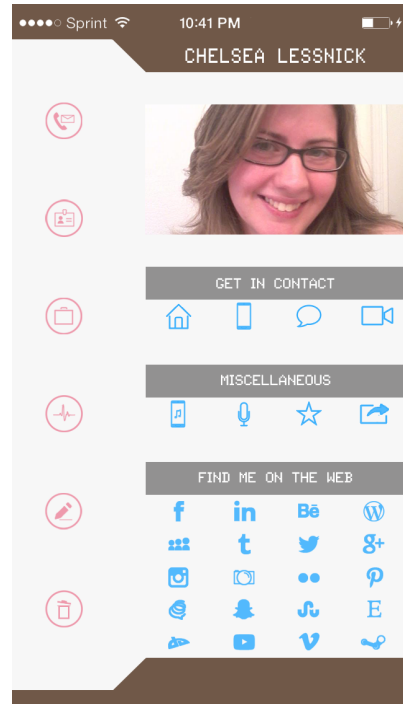


FIGURE 65

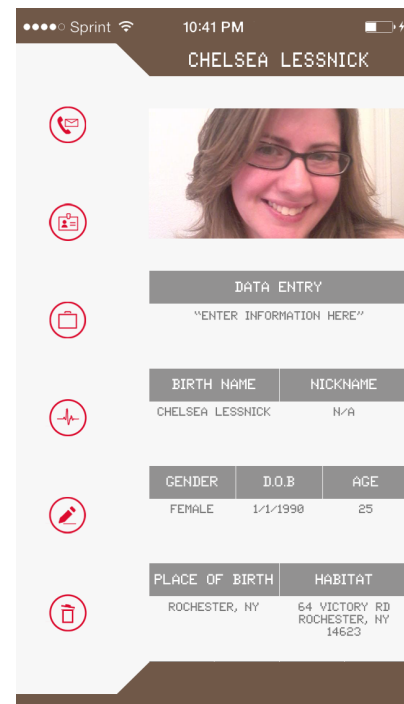
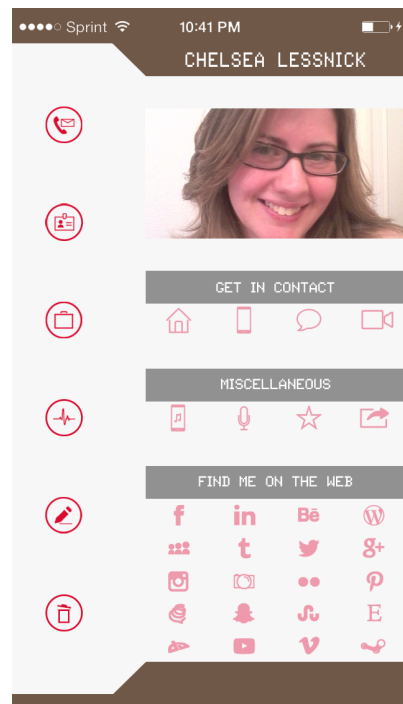
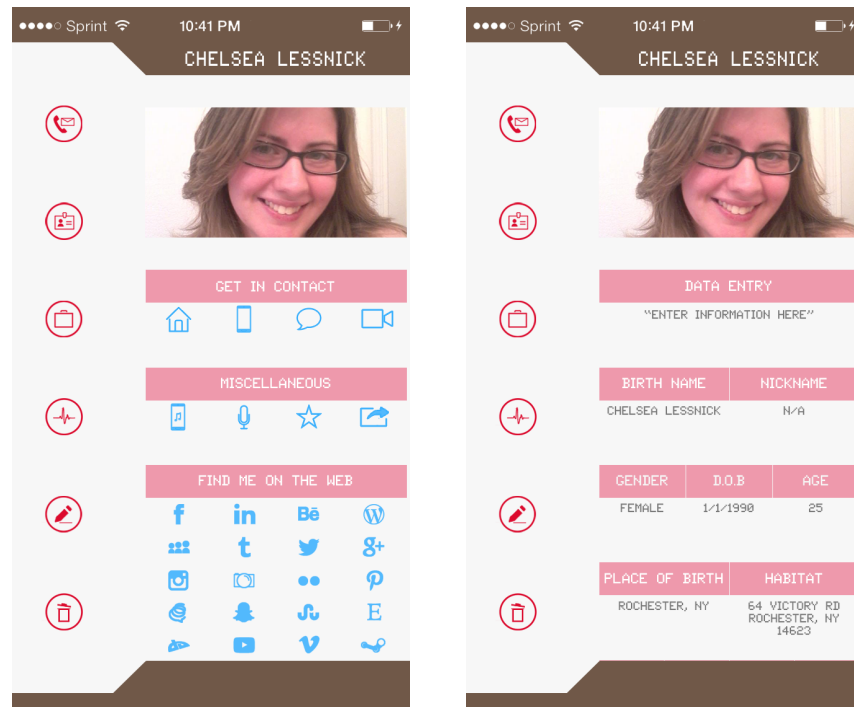


FIGURE 66



In FIGURE 64, the navigation icons within the left column were recolored to match the secondary element of the contact. This design introduces up to 5 different colors which is considered too many at one time. It also breaks the unity of the layout design. By default, the navigation icons were red to match the angled bars at the top and bottom of the screen. If the angled bars change color with each contact and the navigation icons cycle through 19 different colors, they would no longer match each other.

In FIGURE 65, the icons located on the “Contact Profile” page of the Connex application were recolored to match the secondary element of the contact. However, this choice was not ideal due to the introduction of too many colors at one time to the user. Also, there were no repeating elements within the remaining profile pages; Therefore, the “Personal,” “Work,” and “Medical” profile pages turned into FIGURE 63 and displayed only one element.

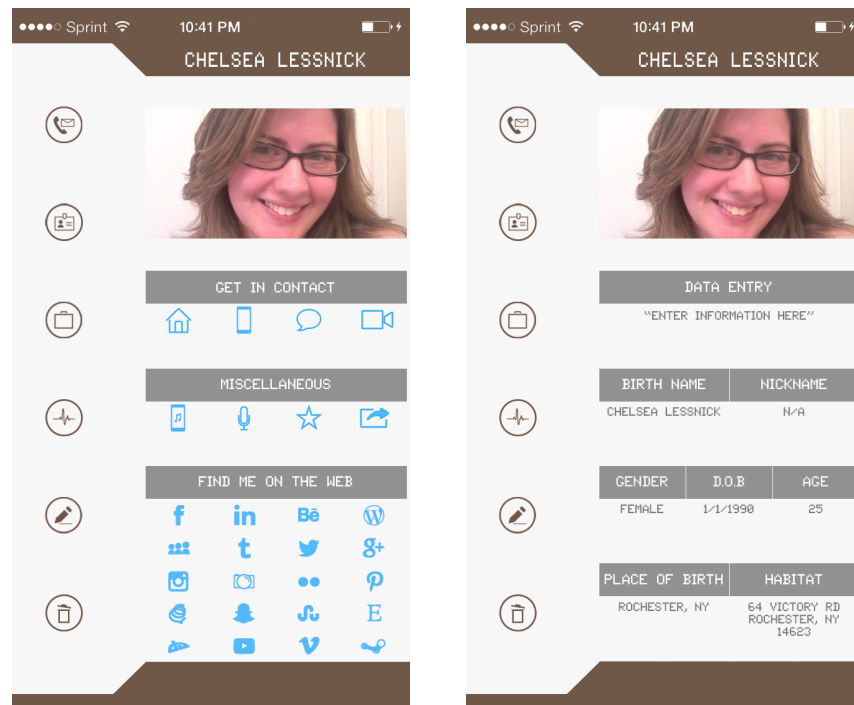
In FIGURE 66, the field headers located on the “Contact,” “Personal,” “Work,” and “Medical” profile pages were recolored to match the secondary element of the contact. Again, this design choice introduced too many colors at once and with the white text of the field headers it was not ideal to change the background to a lighter color.

Countless collaborations with peers took place to determine which method worked best for displaying the elemental types. In the end, it was agreed upon that only one element would be represented regardless if the contact was classified by two elemental types.

Instead of recolor the angled bars at the top and bottom of the screen and leaving the navigation icons in the left column as red, it was decided that the navigation icons would be recolored as well to match the angled bars within the profile pages of a contact.

By having the angled bars and navigation icons cycling through 19 different colors, all of which were different from the other pages in the Connex application, the concern was the unity of the layout design being broken. However, in the other pages of the Connex application, the navigation icons always matched the color of the angled bars. As long as this design stays true throughout the application, the cycling colors from one profile page to the next should not hinder the overall design of the Connex application.

**FIGURE 67**





**FIGURE 68**  
The elements  
shown at  
various levels  
of desaturation.



The top row of colors in FIGURE 68 show the default saturation level for each elemental type. One recurring suggestion from peers was to adjust the saturation level, and lower it so it would not appear too bright.

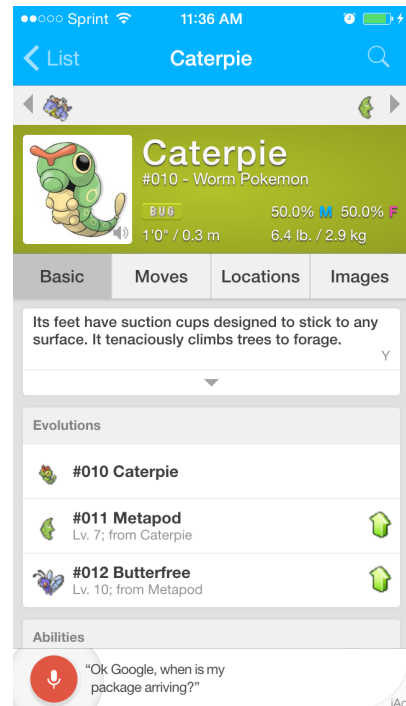
Each row shows a decrease in saturation levels across all of the elemental types, and in the last row most elements have taken on a new form of color. A -25% saturation level appeared to be a comfortable level; however, the image was ported over to an Apple iPhone for further testing.

Due to the difference in quality of an iPhone screen versus a computer screen, the saturation level of the top row of colors were lower on a mobile phone device. This made the default colors of the elemental types the most appealing. The -15%, -25%, -35%, and -50% were all too dark.

## The Process | Adjustments

The first change was made to the display picture of the contact on the contact profile page. A condensed version would allow it to fit within the layout proportionally to the rest of the information.

FIGURE 12



Analyzing the PokeDream Dex application found in FIGURE 12 on pages 35 and 36, the banner displayed across the top of the page was colored to represent the element of the Pokémon. There were also other pieces of information present including the Pokémon's species, Pokédex number, height and weight, and a male to female ratio.

FIGURE 69



Using a smaller display picture, the additional space was filled with other pieces of information including species, entry number, elemental type, and male to female ratio.

For the species portion, the challenge was to make the information unique and diverse. A play was made on the elemental type, and astrology sign fields at the bottom of the “Personal” profile page. With 18 different elements and 12 different zodiac signs, a grand total of 216 different possibilities were available for the species of a contact.

The entry number will reflect the order in which the entry was created. For example, the contact shown in FIGURE 69 appears as the 8th contact in the list, but was the 50th entry created.

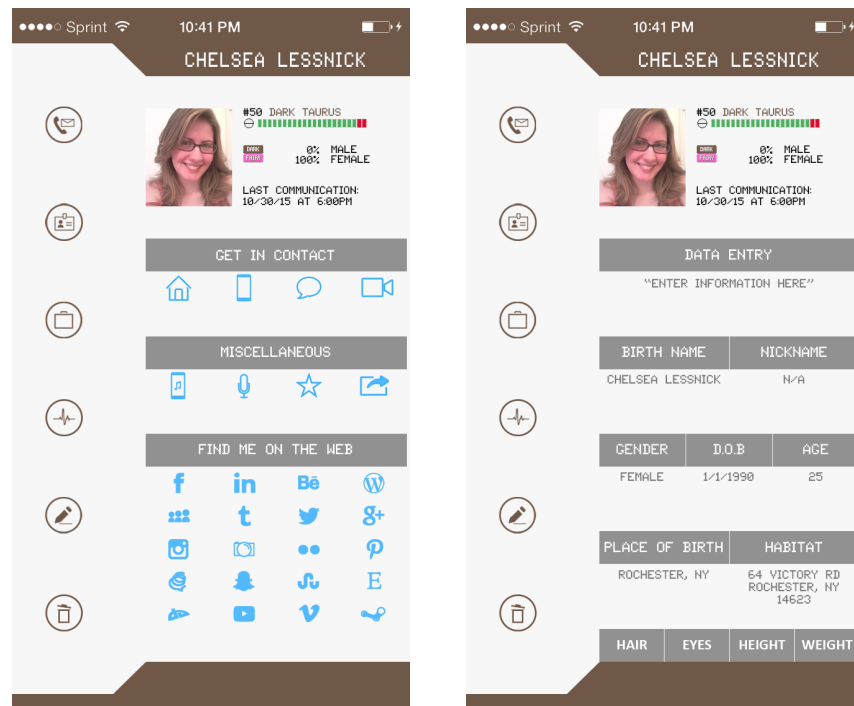
The elemental type information located at the bottom of the “Personal” profile page was brought to the top. This setup allowed users to glance at the information without having to scroll to the bottom of the page.

Lastly, consideration was made to remove the male to female ratio due to the information already appearing in the “Gender” field on the “Personal” profile page. However, what if the contact identified as a transgender? The male to female ratio could be used to indicate which gender the contact identifies with.

FIGURE 69 showed the vast amounts of white space remaining after the information was added. In order to fill this, more information needed to be added.

Peers suggested adding an indicator of how long it had been since the user last spoke with the contact, while classmates and co-workers suggested the addition of a completion indicator to inform the user of their progress completing the profile pages.

**FIGURE 70**



A ball icon was added underneath the species line along with a progress bar to show the progression of completion for this particular contact. The ball would become filled upon 100% completion and the progress bar would be fully green.

However, many peers and fans of the Pokémon franchise did not know what the green bar represented and mistook it for health points (HP). Therefore, the progression bar shown in FIGURE 70 was changed in FIGURE 71 to a textual representation.

FIGURE 71



Although tidbit, the information was useful and provided the user with an overview of the profile of the contact. A similar overview should be incorporated into the contact list so that users have a shortcut of useful tools and features.

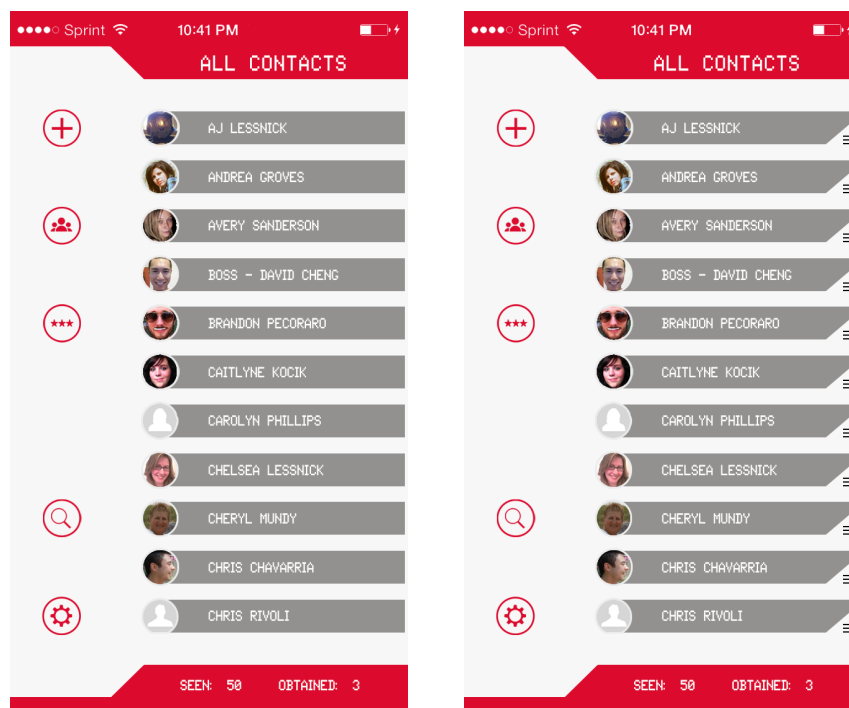
The second change was made to the contact list located on the homepage of the Connex application. Wanting to provide a similar overview experience on the homepage of the application, a shortcut section was created for each contact where users can call or message the person without having to go into the profile of the contact.

By default, when the name of a contact is pressed it redirects the user to the profile page. So the challenge was to create a shortcut function that did not interfere with the current function of each contact container.

The Pokédex interface of the Generation V games shown in FIGURE 8 and FIGURE 9 on pages 25-27 were studied carefully for additional design elements to incorporate into the Connex application.

In the Generation V Pokédex, each boxed container was cut at an angle on the right side. To do the same with the contact list containers would provide space for a small content icon while at the same time reiterating the angled design found in the banners.

**FIGURE 72**

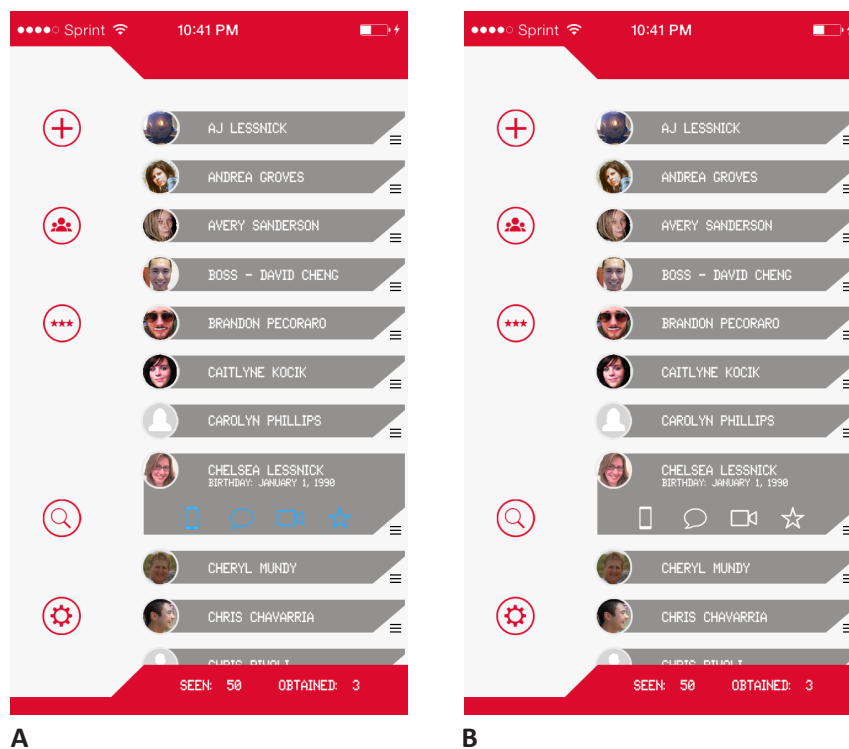


This design appears more balanced and dynamic since there are fewer straight edges. The angled edges of the contact list enhances the layout design giving it a more complete Pokédex theme.

When the content icon located in the bottom right corner of each container is pressed, the container will expand to reveal pieces of information.

**FIGURE 73**

The contact list container expanded to reveal more information.

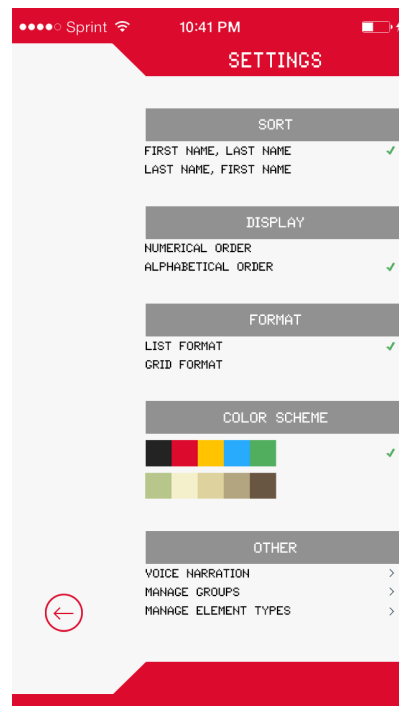


The blue icons of FIGURE 73A turned out dark against the gray background. When ported over to the iPhone, they were difficult to see due to the low contrast levels between the two colors. Therefore, the icons were changed to white to match the rest of the information within the container.

## The Process | Settings

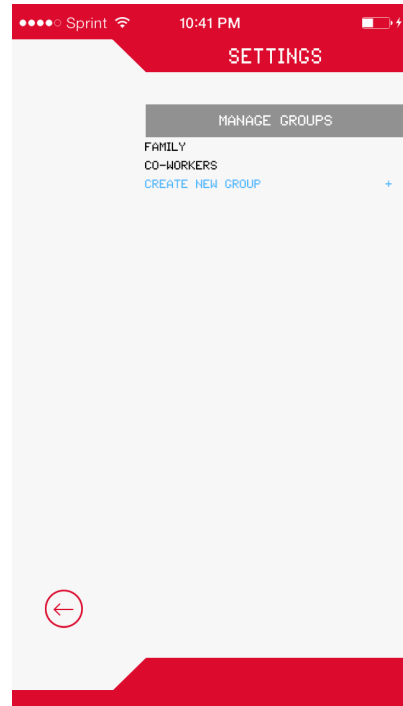
The main pages of the application were fully designed, and the last page to be designed was the “Settings” page. In the “Settings” page, customizable features become available to the user such as changing the default color scheme, changing the definition of the elemental types, displaying contacts by ABC or 123 order, formatting contacts into a list or a grid structure, or sorting the contacts by first name/last name or last name/first name.

FIGURE 74



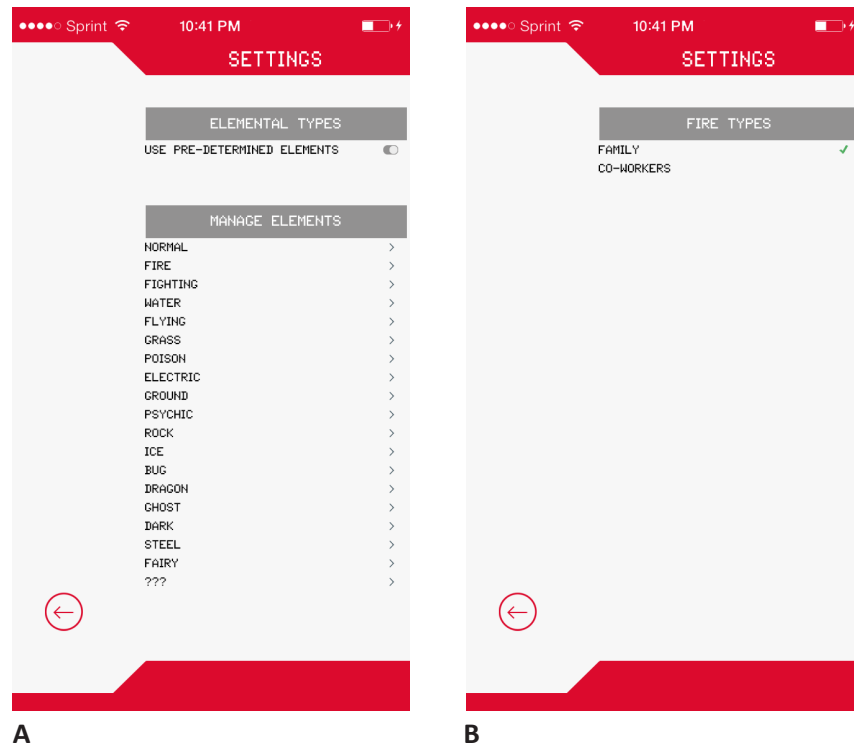
The “Sort,” “Display,” “Format,” and “Color Scheme” sections were self explanatory with respect to what each section controlled. The section titled “Other” was where additional features could be customized.



**FIGURE 75**

The “Manage Groups” category located in the “Other” section of the settings page is where users can add, delete, or modify groups according to their lifestyle. Groups must be created for the “Manage Element Types” feature to work.

FIGURE 76



The last category is the “Manage Element Types.” As noted earlier, at least one group must be created for this feature to become available; however, it is recommended that at least 18 groups be created for this feature to work as intended.

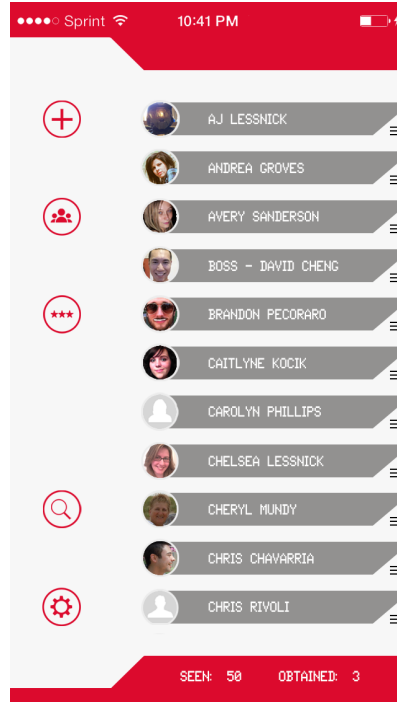
Tapping the “Manage Element Types” field opens a sub-page with the first option allowing users to turn on or off pre-determined meanings for each elemental type. If this feature is turned off, the second option “Manage Elements” becomes unavailable.

If this feature is turned on, users will have full control over assigning groups to each elemental type. To assign a group to a specific element, the user must tap which element they would like to assign a definition to. For example, to assign a group to the Fire element start by tapping the Fire element in FIGURE 76A. Users will then be redirected to FIGURE 76B. FIGURE 76B contains the list of groups created by the user in which the user then taps which group they want represented by the Fire element.

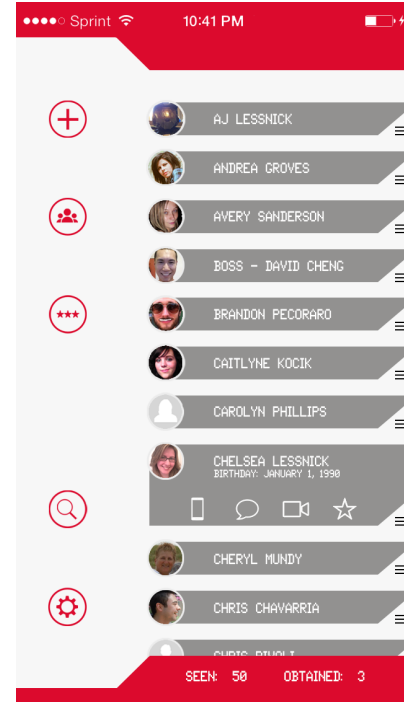
# The Process | Finale

**FIGURE 77**

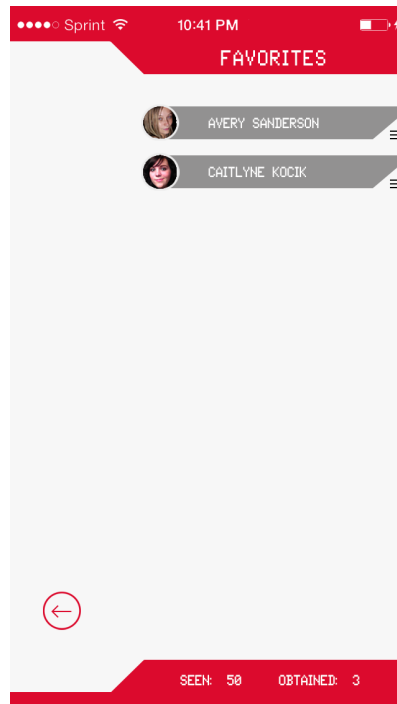
Every page of the Connex application fully designed.



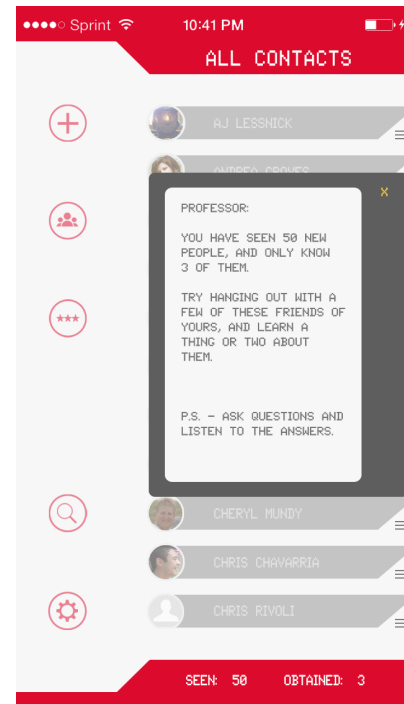
**A: Homepage**



**B: Homepage with Shortcut**



**C: Favorites Page**



**D: Rating Page**

FIGURE 77

SEARCH

FIRST NAME C

LAST NAME L

GENDER FEMALE

AGE 18-25

TYPE WATER

SIGN TAURUS

HABITAT NEW YORK

BEGIN SEARCH

E: Search Page

SETTINGS

SORT

FIRST NAME, LAST NAME ✓

LAST NAME, FIRST NAME

DISPLAY

NUMERICAL ORDER

ALPHABETICAL ORDER ✓

FORMAT

LIST FORMAT ✓

GRID FORMAT

COLOR SCHEME

OTHER

VOICE NARRATION >

MANAGE GROUPS >

MANAGE ELEMENT TYPES >

F: Settings Page

SETTINGS

MANAGE GROUPS

FAMILY

CO-WORKERS

CREATE NEW GROUP +

G: Manage Groups in Settings

SETTINGS

ELEMENTAL TYPES

USE PRE-DETERMINED ELEMENTS

MANAGE ELEMENTS

NORMAL >

FIRE >

FIGHTING >

WATER >

FLYING >

GRASS >

POISON >

ELECTRIC >

GROUND >

PSYCHIC >

ROCK >

ICE >

BUG >

DRAGON >

GHOST >

DARK >

STEEL >

FAIRY >

??? >

H: Manage Elements in Settings

FIGURE 77

CHELSEA LESSNICK

#50 DARK TAURUS  
96% PROFILE COMPLETION

0% MALE  
100% FEMALE

LAST COMMUNICATION WAS ON 10/30/15

GET IN CONTACT

MISCELLANEOUS

FIND ME ON THE WEB

I: Contact Profile Page

CHELSEA LESSNICK

#50 DARK TAURUS  
96% PROFILE COMPLETION

0% MALE  
100% FEMALE

LAST COMMUNICATION WAS ON 10/30/15

DATA ENTRY

"ENTER INFORMATION HERE"

BIRTH NAME	NICKNAME
CHELSEA LESSNICK	N/A

GENDER	D.O.B	AGE
FEMALE	1/1/1990	25

PLACE OF BIRTH	HABITAT
ROCHESTER, NY	64 VICTORY RD ROCHESTER, NY 14623

HAIR	EYES	HEIGHT	WEIGHT
------	------	--------	--------

J: Personal Profile Page

CHELSEA LESSNICK

#50 DARK TAURUS  
96% PROFILE COMPLETION

0% MALE  
100% FEMALE

LAST COMMUNICATION WAS ON 10/30/15

EMPLOYER	ADDRESS
RIT	1 LOMB MEMORIAL DR ROCHESTER, NY 14623

REGIONAL NUMBER
(585) 475-2411

TITLE	SERVICE TIME
GRADUATE STUDENT	4 YEARS

LUNCH ORDER

MARBLE SLAB  
TOM WAHL'S  
CHOCOLATE GALAXY  
CHEESBURGER W/ FRIES

K: Work Profile Page

CHELSEA LESSNICK

#50 DARK TAURUS  
96% PROFILE COMPLETION

0% MALE  
100% FEMALE

LAST COMMUNICATION WAS ON 10/30/15

EMERGENCY CONTACTS

MOTHER (702) 555-5555  
FATHER (702) 222-2222

BLOOD TYPE	ALLERGIES
B-	PENICILLIN

AILMENTS	DISABILITIES
NONE	NONE

MEDICATION	DOSAGE
NONE	NONE

L: Medical Profile Page

# Summary | User Feedback

## SURVEY 1

The first round of conducted surveys were administered via Skype and in the classroom, and consisted of fifteen people that were not fans of the Pokémon franchise. A second round of surveys were administered throughout the workplace which consisted of over three hundred consumers; all of which were loyal fans of the Pokémon franchise. The following question was asked to all 319 participants:

Viewing FIGURE 38A and FIGURE 38B, located on page 65, which one is the most visually appealing and why?



The survey results shown above favor FIGURE 38A, and below are some comments from the participants:

*"I like [FIGURE 38A] because it blends with the navigation system on the left side—kind of like it goes together. It also frames them better."*

By Melissa

*"[FIGURE 38A] makes it look more uniformed, put together, and finished. Whereas [FIGURE 38B] makes it appear more fun, young, and not as well put together."*

By Taylor

*"I like [FIGURE 38B] better. It helps the images stand out, and pop where the gray just mutes it altogether."*

By John

Based on the feedback and participant comments regarding the pros and cons of each design, FIGURE 38B was the chosen design. The layout style contained an element of fun that FIGURE 38A lacked which deterred the Connex application from appearing formal and business oriented.

## SURVEY 2

The first round of conducted surveys were administered via Skype and in the classroom, and consisted of fifteen people that were not fans of the Pokémon franchise. A second round of surveys were administered throughout the workplace which consisted of over three hundred consumers; all of which were loyal fans of the Pokémon franchise. The following question was asked to all 319 participants:

Viewing FIGURE 42A and FIGURE 42B on page 71, and FIGURE 42C on page 72, which one is the most visually appealing and why?



The results favored FIGURE 42C. Multiple participants commented on the poor design of FIGURE 42A, but none chose this option. A hundred and fifty-three participants preferred FIGURE 42B saying that this design choice was simplistic and easy to read. However, the layout received criticism based upon the typography alignment. One participant said it “looked too clustered and like a menu.”

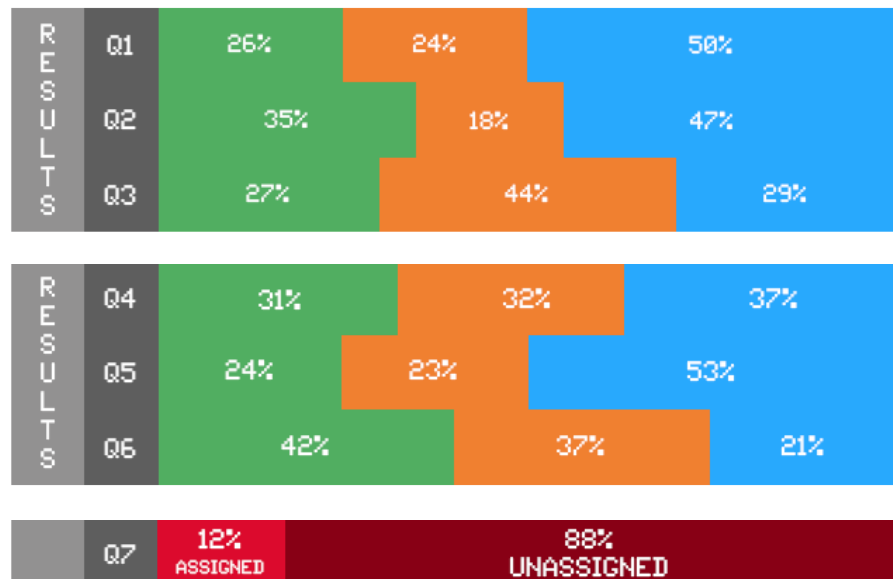
For FIGURE 42C, a hundred and sixty-six participants agreed that each field provided a detailed picture of the person and was far more appealing to the eyes. However, there were mixed reviews about this design choice appearing too cluttered and hard to read.

The layout design choice of FIGURE 42C was the chosen design to carry this project forward because the design stayed true to the theme of the Pokédex. The layout was also the most unified in terms of consistent text alignment.

**SURVEY 3**  
**Referencing**  
**page 102**

The first round of conducted surveys were administered via Skype and Facebook, and consisted of forty people that were not fans of the Pokémon franchise. A second round of surveys were administered throughout the workplace which consisted of over three hundred consumers; all of which were loyal fans of the Pokémon franchise. The following questions were asked to all 344 participants:

- 1) Which color best represents family? Green, Red, or Blue?
- 2) Which color best represents friends? Green, Red, or Blue?
- 3) Which color best represents acquaintances? Green, Red, or Blue?
- 4) Which element best represents family? Grass, Fire, Water?
- 5) Which element best represents friends? Grass, Fire, Water?
- 6) Which element best represents acquaintances? Grass, Fire, Water?
- 7) Should the elemental types carry pre-determined significance, or should the user control the meaning behind each element?



The results were not shocking, and has demonstrated that color is perceived differently than the element itself. A pre-determined list of elements could be created, but users of different cultures would always disagree with the assigned meaning.

Therefore, it was best to leave the elemental types meaningless. This would allow the user to assign these elements to each contact based upon their interpretation. However, this noteworthy feature has potential both ways and will be a customizable feature within the settings menu.



# Conclusion

The idea of this project was to create a new user-interface design for the contact list of an Apple iPhone which utilized various design and visual elements inspired by the Pokédex used in the popular Pokémon franchise. The goal was to re-brand this fictional device so the core functionality would translate into the real world in a practical and original way which would invoke nostalgia for long time players of the Pokémon franchise.

Although the contact list borrowed various design and visual elements from the Pokédex, this new user-interface provides users with a unique form of freedom, control, and flexibility as they start to implement a sense of personality into their phone. Users have the freedom and control to customize the content used for each contact profile, color scheme, layout style, and other optional features to fit their personal preference. This form of creative expression has yet to appear on devices outside of the personal computer.

Studying each generational Pokédex interface revealed patterns such as page layouts, common color schemes, and information placement which remained consistent from one generation Pokédex to the next. Following these patterns throughout the development of the Connex application while staying true to the teachings of McKay, Nielsen, and Graham resulted in a successful transition from fictional device to a concept application ready for development.

For the Connex application, the page layout borrowed successful design elements from each Pokédex iteration, and remained consistent across each page to unify the application. The icons were also changed to visual representations so the design would not be reading intensive for the user. The chosen color scheme of the application reflected the Pokédex device itself to further reinforce the fusion between the Pokédex and the contact list along with remaining consistent across the various pages to create a visual hierarchy. The choice in typography for the Connex application reflected the old school Generation I Pokémon games which contained pixelated art and font due to the limitations of technology.

Since the inspiration of this application draws from the Pokédex device, one shortcoming of the Connex application is the finite demographic that targets Pokémon players and fans of the series along with former fans of the franchise. Although the Pokémon fan-base is a relatively narrow target audience, it does consist of millions of people worldwide. February 27, 2016 marks the 20th Anniversary of the Pokémon franchise, and as of September 2015 approximately 277 million Pokémon games have been sold worldwide. With each new game release, younger generations have a chance to join the vastly growing Pokémon community.

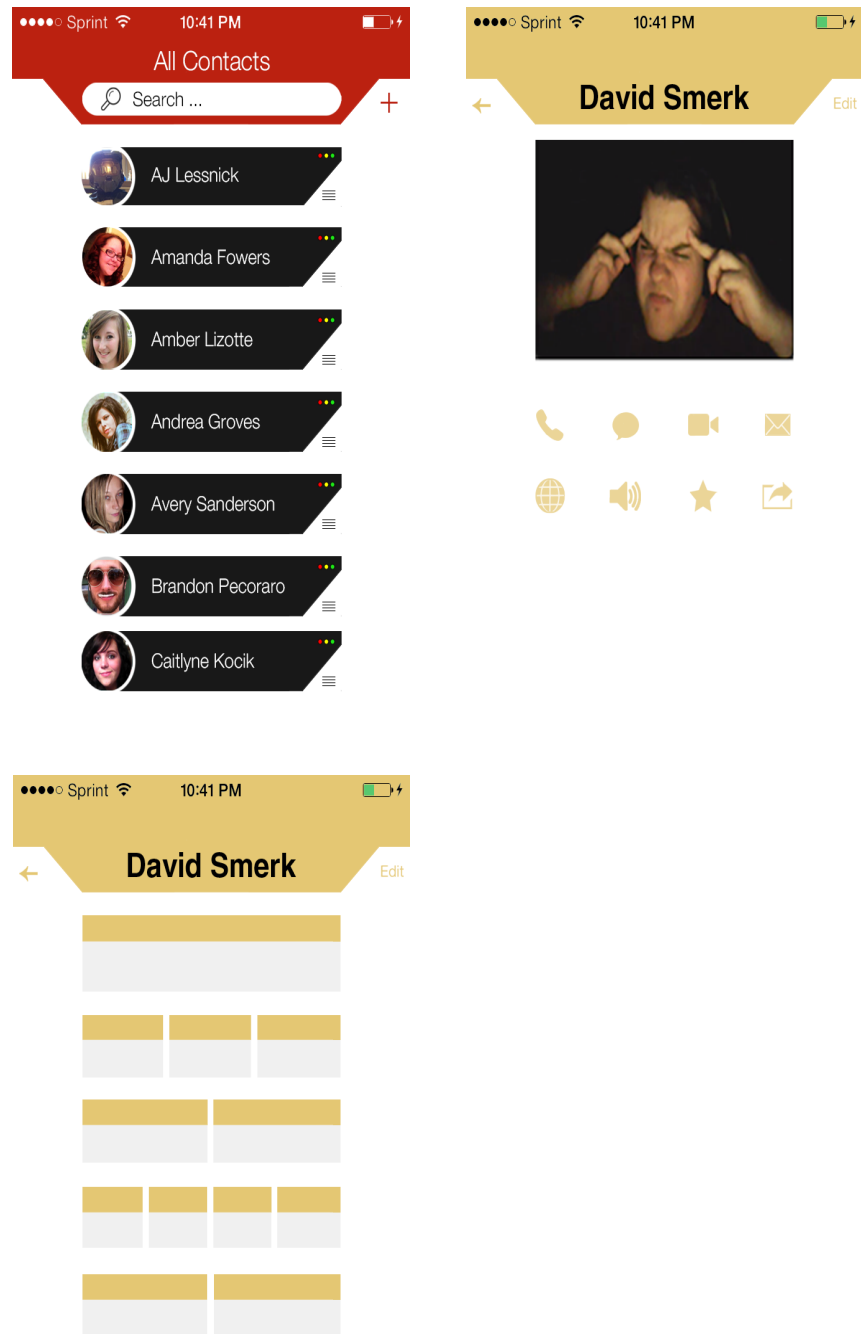
Another shortcoming for this application was using the Pokédex device as an inspiration. This fictional device constantly evolves with each new generation of Pokémon games that are released, and research for this application ended with Pokémon Black2 and Pokémon White2. These games were the last of Generation V, and were released during Winter 2012. Since then two new games were released, and the Generation III games were remastered as part of Generation VI. Currently, Nintendo has confirmed the release of two Generation VII games for Winter 2016.

However, this shortcoming can benefit the Connex application. The current design of the application is ready to be coded into a commercial application, and serves as the foundational default settings. Aside from using the Pokédex element from which this application draws inspiration, the intent was to make this application completely customizable by allowing users to change the layout design, color scheme, and font style in addition to the already customizable options such as profile entry pages, elemental types, and order number. These customization options can be expanded upon by rolling out new updates for the Connex application as new generation Pokémon games are released.

Passion for the Pokémon franchise has pushed the boundaries of this project, and it proved to be rewarding in the end. It was a challenge to add real life meaning to a fictional device. By treating the address book of a mobile phone similar to a Pokédex, this application will allow users to develop an intimate bond with their friends in a completely different and unique way.

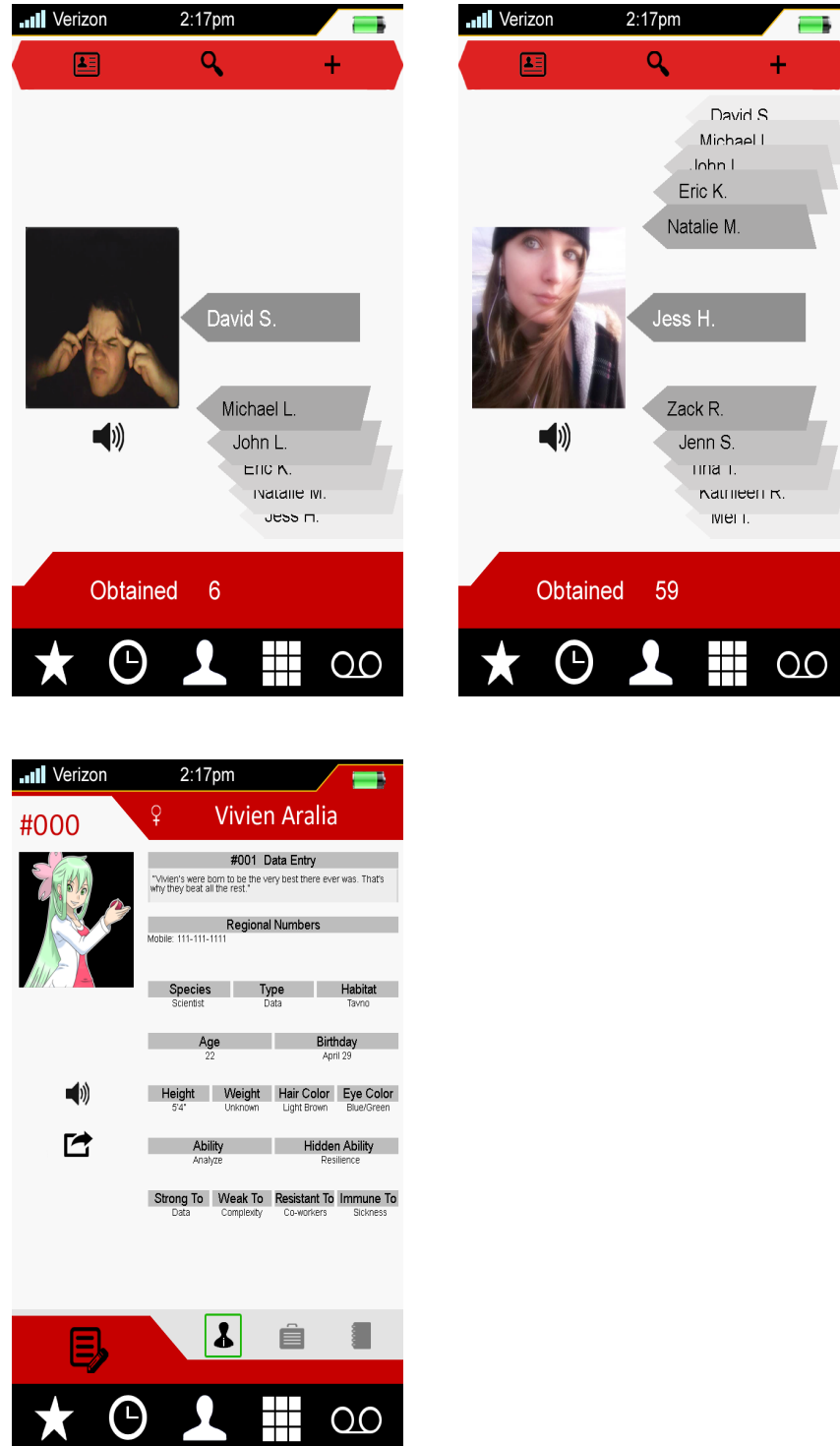
# APPX A | Page Layout

**FIGURE 14**  
Page Layout  
Style 1



# APPX B | Page Layout

**FIGURE 16**  
Page Layout  
Style 3



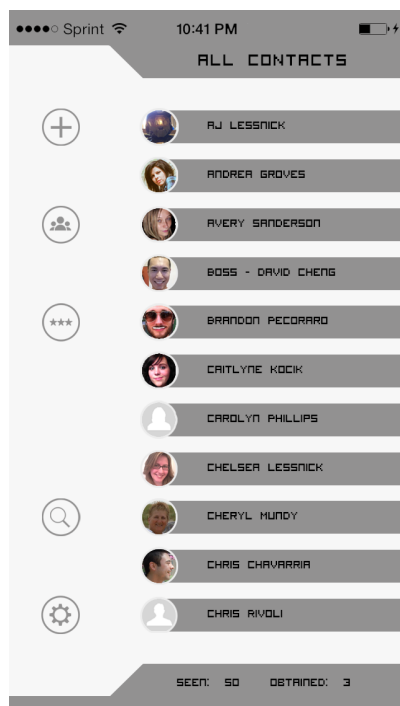
## APPX C | Typography

In total, eight typographic font styles were tested for the Connex application based on three criteria:

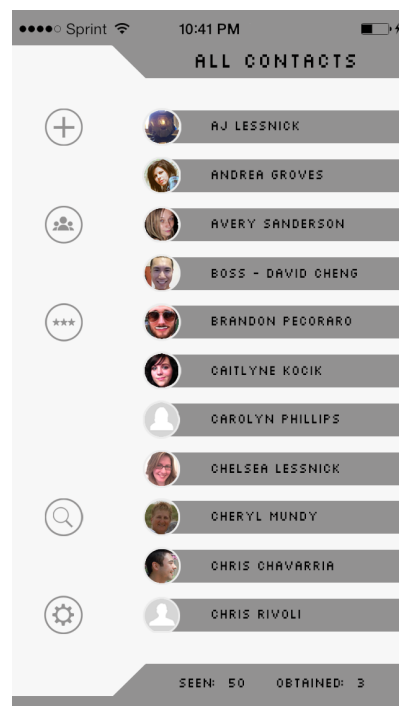
- 1) Pixelated - the font had to contain a pixelated design
- 2) Legibility - the font had to be crisp and distinguishable when scaled down to a small font size, or up to a large font size.
- 3) Kerning - the proper spacing between letters and words must be present otherwise words become indecipherable.

Of the eight different font styles chosen, only two met all three criteria: “Joystix” and “Tandysoft.” Below are the remaining six fonts that were tested: “Visitor,” “Silkscreen,” “Ace Attorney,” “Type Writer,” “Babyblue,” and “Optiate.”

FIGURE 48



C: “Visitor” Font Style

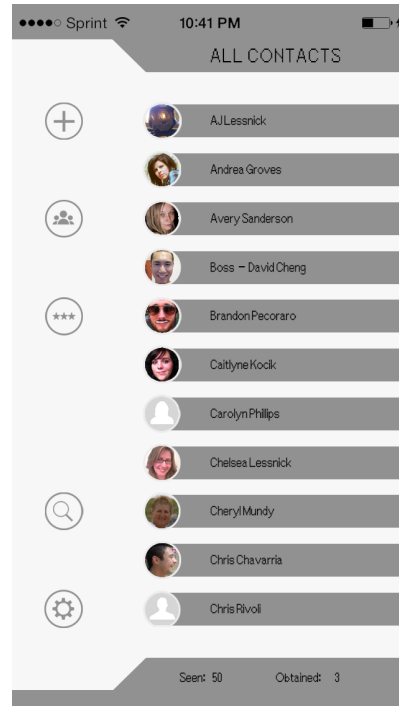


D: “Silkscreen” Font Style

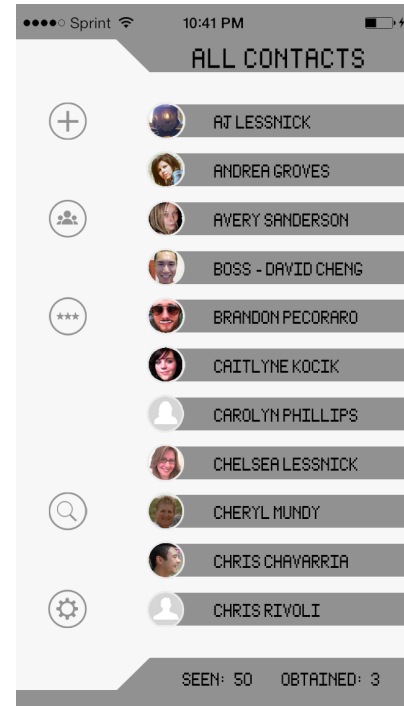
In FIGURE 48C, the font became blurry when enlarged, and lengthy names extended past the right edge due to the generous letter spacing. Also, letters such as “B” appear illegible.

In FIGURE 48D, the font suffered from the same letter spacing issue as FIGURE 48C. To work around this, each letter would have to be resized, kerned, and leaded.

FIGURE 48



E: "Ace Attorney" Font Style

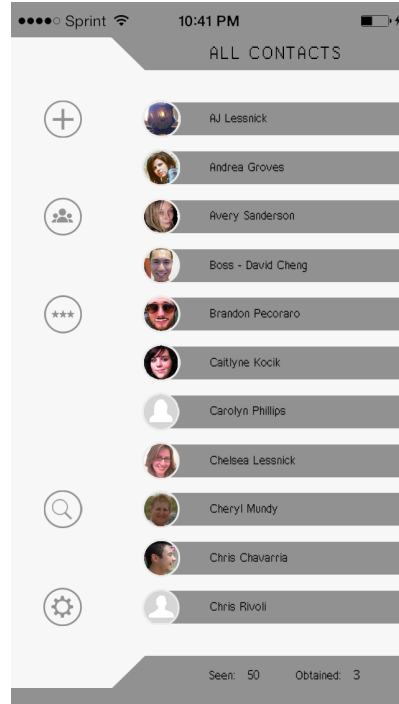


F: "Type Writer" Font Style

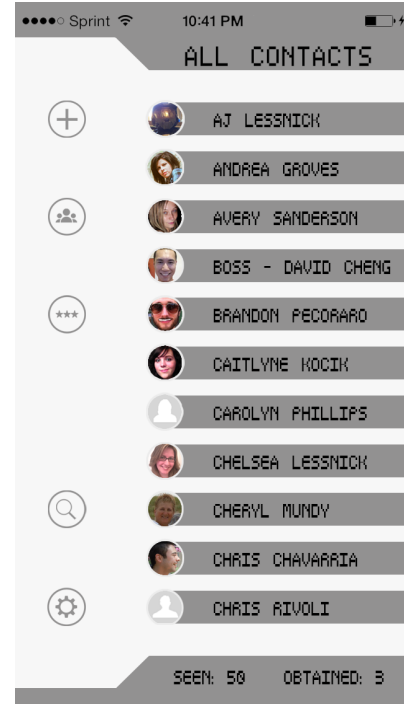
In FIGURE 48E, the font weight was thin which could potentially make it illegible on an Apple iPhone screen. The letter spacing is also thin, allowing individual words to form one long blur.

In FIGURE 48F, the letter spacing was thin as well which forced words to come together to create a blur. Also, letters such as "j" did not have a strong design.

FIGURE 48



G: "Babyblue" Font Style



H: "Optiate" Font Style

In FIGURE 48G, a few major concerns in regards to lowercase letters and the pixelated formation were highlighted. Letters such as "l" got lost, the "R" appeared misplaced, and the numbers at the bottom were not strongly presented.

In FIGURE 48H, this font was weak due to the uneven distribution of weight in each letter. Certain letters such as "S," "N," "R," "P," and "E" were not effectively designed, and appeared to be top heavy instead of evenly distributed.

## APPX D | Proposal

# The Connex:

A New User-Interface Design for the Contacts of a Mobile Phone

Chelsea Lessnick  
A Thesis Proposal for the Master of Fine Arts Degree

School of Design | College of Imaging Arts and Sciences  
Rochester Institute of Technology  
Visual Communication Design  
October 16, 2013



# APPX D | Signatures

Date	Chris Jackson, Chief Advisor School of Design
Date	Shaun Foster, Associate Advisor School of Design
Date	Nancy Ciolek, Associate Advisor School of Design

## APPX D | Introduction

The current interface design for the contact list of an Apple iPhone is minimalistic and business oriented similar to Microsoft Outlook, Google, and Yahoo! contacts. The grayscale color scheme blends information together when skimming through the profile of a contact. Also, the user-interface is too basic which causes the end user to not care for additional information outside of a phone number and maybe a profile picture.

The idea of this project is to create a new user-interface design for the contact list of an Apple iPhone which draws inspiration from the Pokédex used in the popular Pokémon franchise. The goal is to re-brand this fictional device so the core functionality translates into the real world in a practical and original way. The choice to re-imagine this interface around the Pokédex stems from the realization that the Pokédex and the contact list of an Apple iPhone operate on an identical level:

- 1.) A Pokédex is a handheld digital encyclopedia that stores and presents data for all Pokémon and provides Pokémon Trainers with material which can be referenced at anytime during their journey. The contact list is not an encyclopedia, but it does store and present data to the user about every contact programmed into their phone. Although it must be inputted manually, it can be referenced at any point thereafter.
- 2.) A Pokédex displays all information relating to each Pokémon, such as biological information, reference pictures, audio cry, and habitat based upon the time of day. Although not as descriptive, the contact list does contain information such as the phone number of a contact, address, employer, anniversary, social media pages, and other content.

Although the Pokédex shares similar design elements with the contact list of an iPhone, it is the contacts of the user that will replace each individual Pokémon. This should invoke nostalgia among fans of the Pokémon series as they go on a quest to complete their own “Pokédex” by obtaining information to complete each field of a contact entry.

With the design characteristics of the Pokédex and the functional features of the Apple iPhone combined into one minimalistic design, users will be given the ultimate form of freedom, control, and flexibility as they start to incorporate their own personality into their phone. Users will be able to control the content used for each contact entry, along with customizing the color scheme, layout style, and other optional features.

The level of control needs to stay true to the Pokédex theme, and can be accomplished through a mixture of design aesthetics and graphic elements to convey a similar user-experience to long-time fans of the series. For those unfamiliar with the series, the interface proposes a new approach to users in terms of understanding their friends in a fun and enjoyable manner.

## APPX D | Literature Review

### User-Interface Literature

#### **Designing Visual Interfaces**

by Kevin Mullet and Darrell Sano  
SunSoft Press, Englewood Cliffs, New Jersey. 1995.

Coming from an industrial design and graphic design background, Mullet and Sano (respectively) created “Designing Visual Interfaces” based on the many tutorials they conducted while at CHI and other conferences since 1993. The book shows the design of a user-interface from a lesser known visual communication perspective as it describes a number of important design rules and techniques taken from the traditional print media and applied to the context of computer software in a series of illustrative screen pictures. Mullet and Sano argue that elements within a design must be unified to produce a coherent whole, yet must also contain a certain degree of contrast against each other. A visual hierarchy of importance must be established in order to display the relationship between elements and groups while maintaining a pleasing balance in the composition. A flexible grid should be the base for each page so different screens have a consistent look when compared to each other.

#### **UI is Communication: How to Design Intuitive, User-Centered Interfaces by Focusing on Effective Communication.**

by Everett N. McKay  
Elsevier, Waltham, Massachusetts. 2013.

Working as a principle for the consultant company UX Design Edge, McKay is a user-experience design trainer for desktop, mobile, and web applications. McKay’s book is targeted towards software professionals who are not experienced designers as he discusses the communication design principles which provide:

- The baseline of intuitive user-interactive design
- Interaction design which establishes the language of UI
- Visual design which explores UI from a communication perspective
- Communication to people which covers the end user interaction
- A communication-driven design process
- A UI design case study which applies the communication-driven design process to various design problems.

This will apply to a mobile application in a sense that the application needs to have the user-interface as an interpreter to the end use so that the end user can understand what is to be done on their end.

## Web Usability Literature

### **Designing Web Usability**

by Jakob Nielsen

New Riders Publishing, Indianapolis, Indiana. 2000.

Nielsen is a usability specialist and his book focuses on the relationship between usability and the internet. Based on his research and findings, he has formulated two critical principles concerning web usability: 1) web users want to find what they are after quickly, and 2) if they do not know what they are after, they want to browse the information quickly and in a logical manner. Intended for computer programmers and computer graphic designers, this book also applies to every digital device produced since there are different types of screens from which people could be reading information. The underlying foundation of this book is the usability of books versus digital device applications to obtain information.

### **Don't Make Me Think!: A Common Sense Approach to Web Usability**

by Steve Krug

New Riders Publishing, Indianapolis, Indiana. 2005.

Krug is an information architect and user experience professional who uses his book to target web designers. He exposes different ways in which a user navigates and interprets a web page, adding that every bit of thought on what to do next will only add to the brain's workload causing frustration. Most users no longer read an entire web page, but scan the pages for points of interest. To achieve a design meant for scanning rather than reading, Krug suggests a visual hierarchy should be established, relatable text should be nested together and kept brief, and sections of a page along with clickable items should be clearly defined. He also suggests "do's" and "don'ts" which can be applied to mobile applications. For example, not hiding information on the user, not obstructing the site with fancy features, and not making the user take on unnecessary obstacles.

## Design Literature

### **Basics of Design: Layout and Typography for Beginners**

by Lisa Graham  
Thomson Delmar Learning. 2005.

Graham is an Associate Professor at the University of Texas in Arlington, and serves as the area head of Graphic Communication in the Department of Art. Her book focuses on how imagery and typography correspond with each other on a page. The target audience for Graham's book ranges from beginning design students to professionals. The premise of this book addresses the different design principles needed to develop a message and direction since each principle effects the layout of the page differently. These basic design concepts for typography apply to print and digital works.

### **Official Pokédex iOS App**

Developed by The Pokémon Company  
Released December 10, 2012  
[http://www.Pokédexios.com/howto/index\\_iphone.html](http://www.Pokédexios.com/howto/index_iphone.html)

Released for Apple mobile devices, the Official Pokédex iOS App took a unique approach to the graphic design interface of the application which closely resembles the PC box from the games rather than an actual Pokédex. A PC box stores captured Pokémon after the player has obtained more than six Pokémon. The Official Pokédex iOS App experimented with many styles and features which were not implemented into the games. For example, viewing the list by icon, descriptive lists or shortened lists, changing the background image, browsing the list of moves a Pokémon can learn, categorizing Pokémon, and lastly leaving your own memos about certain Pokémon.

## App Creation Literature

### **Tapworthy: Designing Great iPhone Apps**

by Josh Clark  
O'Reilly Media Inc, Sebastopol, California. 2010.

Clark is a professional software designer and developer who created exceptional end-user experiences when developing iPhone applications. His guide focuses on the interface and visual capabilities of the device, discussing the design principles and aesthetic choices that should be followed when trying to create noteworthy and tool-appropriate applications. Clark also examines conceptual design topics including screen real estate for visual clarity, the best use for standard controls, gestures, and the application interactivity. He does not mention computer programming code nor attempt to give advice.

**Designing Mobile Interfaces**

by Steven Hooper and Eric Berkman  
O'Reilly Media Inc., Sebastopol, California. 2012.

Hooper is a freelance interactive systems designer, and Berkman is an interaction designer and experience architect at Digital Eskimo. The book is designed to cover any job field related to design—information, visual, interaction, interface, and hardware. Hoover and Berkman outline a few principles concerning mobile interfaces. Above all, designers must: realize mobile phones are personal and must work in all contexts, respect user-entered data, and ensure consistency. They also discuss topics to break down the design components of mobile platforms such as wayfinding, notification sounds, screen real estate, composition, and visual hierarchy which can take the form of scrolling, fixed menus, lock screens, advertisements, position, size, shape, contrast, color, and form. By understanding the architecture and components of a handheld device, it will become easier for designers to develop successful interfaces and applications for the users.

**Subject Matter  
Literature as of  
September 2013**

**Generation I: Pokémon Red, Pokémon Blue, and Pokémon Yellow**

Developed by Game Freak, Inc.

Published by Nintendo

Red and Blue Released on September 30, 1998

Yellow Released on October 1, 1999

Marking the beginning of the popular franchise, Pokémon Red, Pokémon Blue, and Pokémon Yellow was created for gamers ages 8-15. The Pokédex of this generation was kept simple in terms of design and information displayed about the different Pokémon in the game. Information was kept to a single page with the exception of a Pokémon's entry and the area in which it lived. These basic informational features are critical to the development of this application, and serves as the foundation.

**Generation II: Pokémon Gold, Pokémon Silver, and Pokémon Crystal**

Developed by Game Freak, Inc.

Published by Nintendo

Gold and Silver Released on October 15, 2000

Crystal Released on July 29, 2001

The second generation installment of the series is Pokémon Gold, Pokémon Silver, and Pokémon Crystal which were created for gamers ages 8-15 and fans of its predecessors. This generation brought a revolutionary new feature to the series: the search option. This allows the player to search for specific Pokémon based on different criteria. The Pokédex also had minor changes made to it including a darker color scheme, and an avatar of the Pokémon incorporated into the list. In addition, the “data”, “cry”, and “habitat” buttons were relocated to the Pokémon’s entry page as a sub-menu across the bottom of the screen.

**Generation III: Pokémon Ruby, Pokémon Sapphire, and Pokémon Emerald**

Developed by Game Freak, Inc.

Published by Nintendo

Ruby and Sapphire Released on March 19, 2003

Emerald Released on May 1, 2005

Pokémon Ruby, Pokémon Sapphire, and Pokémon Emerald marked the beginning of the third generation with a target audience of gamers ages 8-15 along with fans of the series. A redesign of the Pokédex followed the technological advancements of Nintendo’s handheld system. The Gameboy Advance allowed Game Freak to take design risks as they expanded the capabilities of the Pokédex to include new content such as viewing a Pokémon’s size in relation to the main character.

**Generation III Remakes: Pokémon FireRed and Pokémon LeafGreen**

Developed by Game Freak, Inc.

Published by Nintendo

Released on September 9, 2004

Released as remakes of the Generation I classics, the Pokédex of Pokémon FireRed and Pokémon LeafGreen has been completely transformed making it less user friendly by adding extra steps. Players must go through a search screen before they can be redirected to the full list of Pokémon. Within the list, each elemental type is listed next to the name of the Pokémon causing the screen to be in disarray. With different pages containing different content, the inconsistent layout makes the information appear misplaced.

**Generation IV: Pokémon Diamond, Pokémon Pearl, and Pokémon Platinum**

Developed by Game Freak, Inc.

Published by Nintendo

Diamond and Pearl Released on April 22, 2007

Platinum Released on March 22, 2009

Marking the start of the fourth generation games, Pokémon Diamond, Pokémon Pearl, and Pokémon Platinum are the first to target an older audience from ages 7-20. The Nintendo DS system introduced dual screens which allowed Game Freak more screen real estate in which to work and of which they took full advantage. The top screen shows a list of Pokémon and a picture of the currently selected Pokémon, while the bottom screen contains various buttons which allows the player to perform a search, and switch the layout of the Pokédex. A new feature was added to the Pokédex of this generation: viewing the various forms of a Pokémon.

**Generation IV Remakes: Pokémon HeartGold and Pokémon SoulSilver**

Developed by Game Freak, Inc.

Published by Nintendo

Released on March 14, 2010

Released as remakes of the Generation II classics, the Pokédex of Pokémon HeartGold and Pokémon SoulSilver has been completely remodeled. Moving away from a list format, Game Freak opted to display the avatar of each Pokémon in small boxes arranged in a grid format. Players still have the option of viewing a Pokémon's habitat, data, and listening to their cry; however, the habitat portion of the Pokédex has been updated to reflect the location of Pokémon based upon the time of day, since some Pokémon only appear at night. Overall, this redesign is far more visual and greatly reduces the amount of content that needs to be displayed thereby making the interface appear less cluttered.



**Generation V: Pokémon Black and Pokémon White**

Developed by Game Freak, Inc.

Published by Nintendo

Released on March 6, 2011

Pokémon Black and Pokémon White marked the beginning of the fifth generation of the series. This new generation of games offer a fully redesigned Pokédex that utilizes both screens to act as one. The list of Pokémon appears on the right side of the screen and bleeds into the top screen when the player scrolls down far enough. Some information appears on the top screen such as how many Pokémon the player has “seen and obtained”. A sub-menu is located at the bottom of the screen which allows players to conduct a search and switch between the regional and national versions of the Pokédex.

**Generation V Sequels: Pokémon Black2 and Pokémon White2**

Developed by Game Freak, Inc.

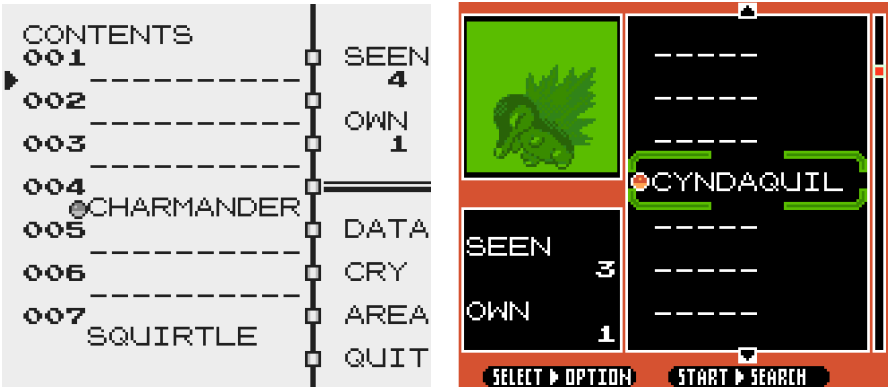
Published by Nintendo

Released on October 7, 2012

Pokémon Black2 and Pokémon White2, set two years after the events of Pokémon Black and Pokémon White, represent the first sequel produced in the series. Instead of switching between the regional and national Pokédex, players can switch between viewing the Pokémon in a list form or by habitat location.

# APPX D | Pokédex Designs

FIGURE 1



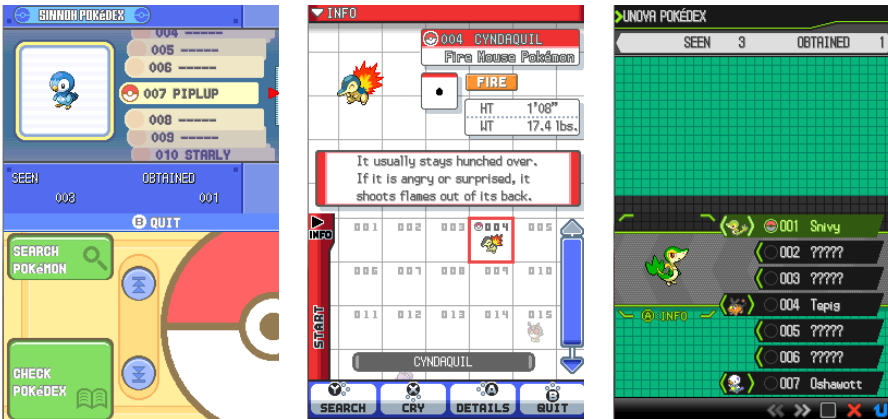
A: Generation I Pokédex

B: Generation II Pokédex



C: Generation III Pokédex

D: Generation III Remake Pokédex



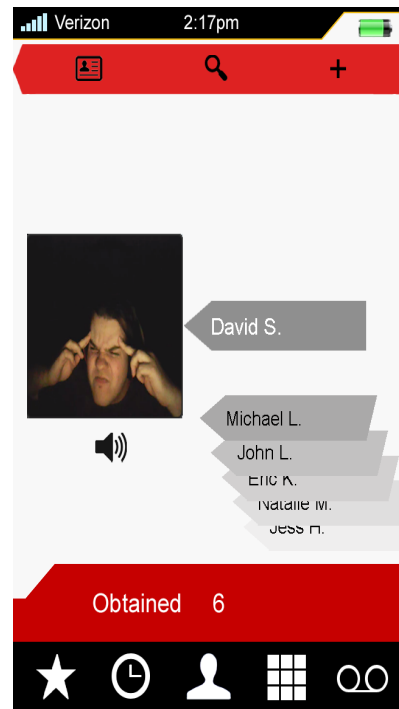
E: Generation IV Pokédex

F: Generation IV Remake Pokédex

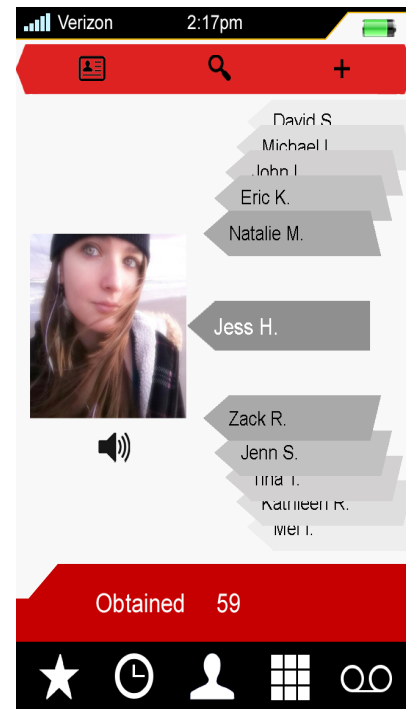
G: Generation V Pokédex

# APPX D | Concept Ideation

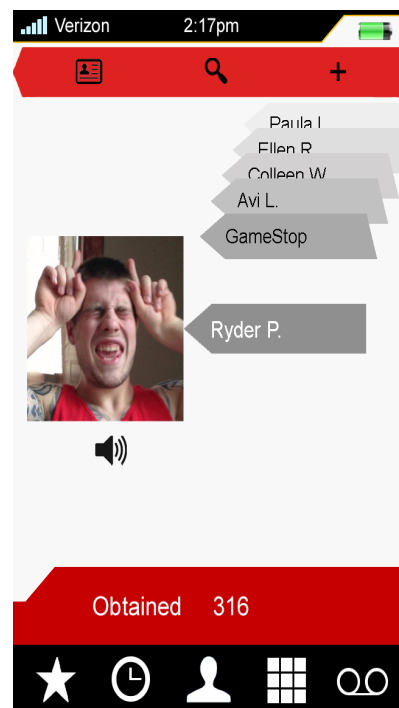
FIGURE 2



A: Homepage



B: Homepage



C: Homepage

FIGURE 2

Verizon 2:17pm

#001 ♂ David Smerk

#001 Data Entry  
"David's typical day consists of nothing more than eating and sleeping. Should this cycle be disturbed, one better have a damn good reason."

Regional Numbers  
Mobile: 555-555-5555  
House: 606-606-6066

Species	Type	Habitat
Hibernating Bear	Ground	Cold Climate

Age: 20 Birthday: Spring

Height	Weight	Hair Color	Eye Color
6'4"	Unknown	Brown	Brown

Ability: Rest Hidden Ability: Grizzly Snore

Strong To	Weak To	Resistant To	Immune To
N/A	Soft Things	Drama Inducing Headaches	Happiness

Record Battle Cry  
Default Ringtone  
Text Ringtone

Icons: Star, Clock, Person, Grid, Double Circle

D: Personal Profile Page

Verizon 2:17pm

#001 ♂ David Smerk

Company Name: Pizza Hut

Regional Numbers: Work: 777-777-7777

Street Address: 42 Wallaby Way Location: Sydney, Australia

Record Battle Cry  
Default Ringtone  
Text Ringtone

Icons: Star, Clock, Person, Grid, Double Circle

E: Work Profile Page

Verizon 2:17pm

Order: --

Name: --

Letter: --

Habitat: --

Gender: --

Search

Icons: Star, Clock, Person, Grid, Double Circle

F: Settings Page

Verizon 2:17pm

Order: A to Z

Name: First Name

Letter: D

Habitat: Other

Gender: --  
Male  
Female

Search

Icons: Star, Clock, Person, Grid, Double Circle

G: Settings Page

## APPX D | Methodology

### Target Audience

Male and Female gender  
Ages 12–35  
Occupation of student, office, or industry  
Must have a Middle School–Post Grad education  
3rd Grade reading level or higher

### Hardware & Software

Nintendo DS System  
Nintendo 3DS System  
All of the Pokémon games  
Apple iPhone  
Computer  
Adobe Photoshop  
Adobe After Effects

### Animation

Composition size of 640x1136 at 300 dpi  
Approximately 5 minutes in length

### Approach

This thesis project borrows design and visual elements from the Pokédex. The recurring elements will be used to unify the user-interface while the features will be used to give personality to the interface.

For consistency purposes, an Apple iPhone will be used to document some of the current functionality in relation to the contact list.

Adobe Photoshop will be used to create each icon and design element needed for each individual page of the project. These components will be combined to create the different pages.

After each page has been created and revised, the graphics will be imported into Adobe After Effects where they will be strung together to create a video prototype of the application.

## APPX D | Implementation

The Nintendo Gameboy Color, Nintendo DS Lite, and Nintendo 3DS systems will aid in the documentation of recurring design elements and features found in the Pokédex. These key designs and features will be integrated into the foundation of the user-interface design.

Then the current navigation of the contact list on an Apple iPhone will be recorded. Every gesture based control will be noted for consistency purposes which will make the user-interface easy and comfortable to use.

Research on different icons and signage will be done as well. By using universal symbols, the incorporated icons will be understood by people of all cultures living within the United States.

The design elements, features, and gesture based functions will be combined in a way where they can compliment, and work off of each other. The end result will be a new user-interface that allows the user the ability to customize it to their personal preferences. Adobe Photoshop will be used to bring these elements together to create a composition prototype of the different pages.

Collaborations with peers and fans of the series, as well as surveys, will be conducted to obtain feedback and make revisions. Topics for consideration are how accurately the icons represented the destination, if the information was easy to read, if the features were too complex and confusing, or if the application felt incomplete because a feature was missing. This step will be repeated until feedback is minimal and becomes more suggestional rather than constructive criticism.

Once the problems have been identified and revisions are made, each page will be imported into Adobe After Effects and strung together to form a video prototype of the application in use. Each operation will be demonstrated, and certain features will be shown from multiple angles.

## APPX D | Dissemination

The application will be on display at Imagine RIT, which will allow a wider range of feedback from first time users. Thereafter, attendees will spread the word about the application when they speak of their experience using the interface.

In addition, testers can speak of its purpose and how it functions. Teachers can also do the same as they speak of past projects to future students.

Lastly, the fully developed application will be made available on the Apple Marketplace for download.

## APPX D | Evaluation

### Usability Testing

Peers will evaluate the Connex application during the different stages of the design process. Each survey will ask for opinions on different design styles, colors, and design features.

### Qualitative or Quantitative

The surveys will be both qualitative and quantitative as testers make a simple “either or” decisions, and then provide an explanation of why they chose their answer.

### Implementation

Based on the feedback, changes will be made to correct existing problems. This cycle will continue until the user-interface has been corrected and enhanced to provide a better experience for the user.



## APPX D | Pragmatics

### Expenses Budget

Nintendo Gameboy Color	Acquired
Nintendo DS Lite	Borrow
Nintendo 3DS	Acquired
Pokémon Red	Acquired
Pokémon Blue	Acquired
Pokémon Yellow	Acquired
Pokémon Silver	Acquired
Pokémon Gold	Acquired
Pokémon Crystal	Acquired
Pokémon Sapphire	Acquired
Pokémon Ruby	Acquired
Pokémon Emerald	Acquired
Pokémon Diamond	Acquired
Pokémon Pearl	Acquired
Pokémon Platinum	Acquired
Pokémon Black	Acquired
Pokémon White	Acquired
Pokémon Black2	Acquired
Pokémon White2	Acquired
Pokémon X	\$43.19
Pokémon Y	\$43.19
Pokémon FireRed	Acquired
Pokémon LeafGreen	Acquired
Pokémon SoulSilver	Acquired
Pokémon HeartGold	Acquired
Apple iPhone	\$500–\$700
Computer	Acquired
Adobe Photoshop	Acquired
Adobe After Effects	Acquired

### Time Budget

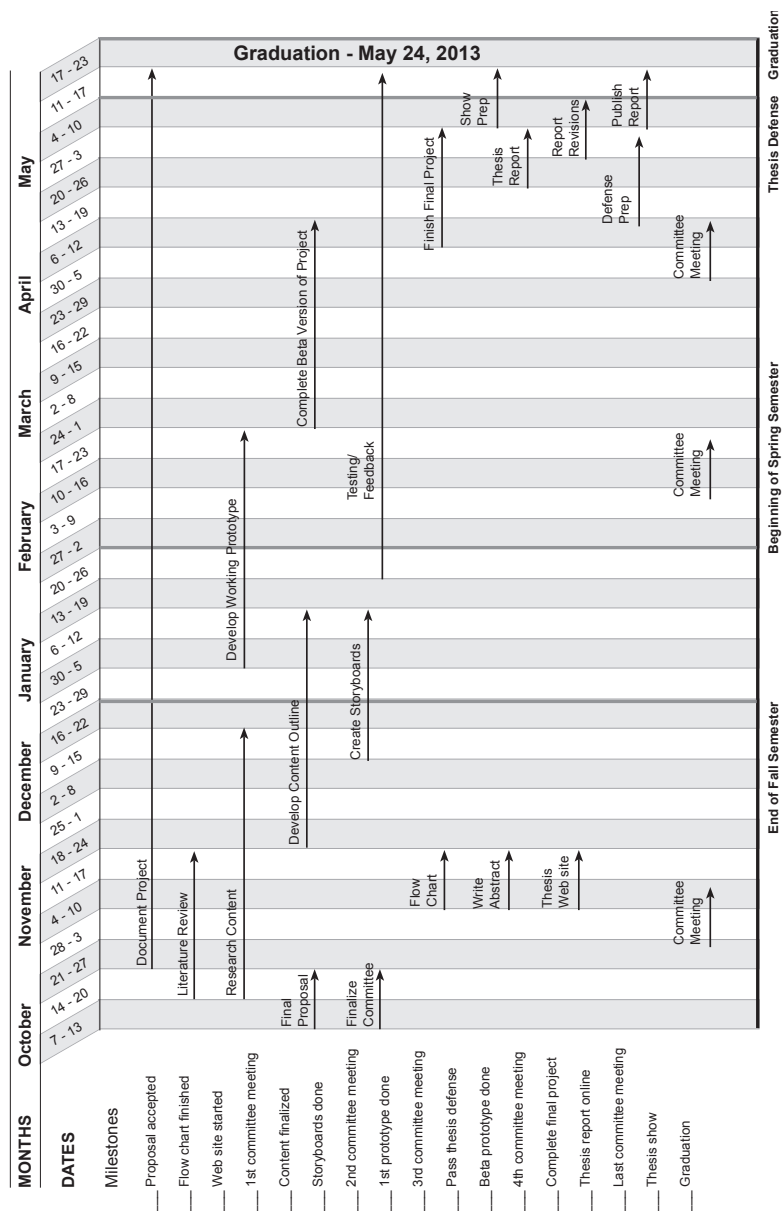
See Timeline on page 151.

# APPX D | Timeline

## Thesis Timeline

by Your Name Goes Here

Thesis Title: Subtitle Goes Here to Help Define Thesis Problem Statement



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